Huntleigh HEALTHCARE

NESBIT EVANS Products Division

ENTERPRISE™
ACUTE CARE BEDS

MODEL
5000

SERVICE MANUAL

Document Reference: 746-446

Build Level 10

21.01.2007

Huntleigh Healthcare
Nesbit Evans Products Division
Woden Road West
Wednesbury
West Midlands
WS10 7BL U.K.

TEL:+44 (0)121 556 1511
FAX:+44 (0)121 502 2092
sales@huntne.co.uk

PREFACE

Read and understand this manual before attempting to service or repair the equipment.

This manual is intended for use by Huntleigh Healthcare approved service technicians. The manual may be provided to a customer in response to customer requirements, but in no event will Huntleigh Healthcare be responsible for any service or repair performed by customers.

Warnings, Cautions and Notes

WARNINGS given in this manual identify possible hazards in procedures or conditions which, if not correctly followed, could result in death, injury or other serious adverse reactions.

Cautions given in this manual identify procedures or conditions which, if not correctly followed, could result in equipment failure or damage.

Notes given in this manual (indicated by ☞) are used to explain or amplify a procedure or condition.

★ Indicates optional features or functions not available on all beds.

General Warnings

WARNINGS

Before starting any service or maintenance procedures, ensure that the equipment has been adequately decontaminated.

Electrical equipment can be hazardous if misused. Obey all safety instructions.

Do not use electrically powered beds in the presence of flammable gases, such as anaesthetic agents.

The bed and its sub-assemblies are very heavy and appropriate precautions must be taken to avoid injury when moving or lifting them.

TABLE OF CONTENTS

1 INTRODUCTION 1-1

1.1 About This Manual 1-1
1.2 Product Description 1-2
1.3 Contact Information 1-4

2 OPERATION 2-1

2.1 Installation 2-1
2.2 Brakes and Steering 2-1
2.3 Folding Safety Sides 2-2
2.4 Bed Extension 2-3
2.5 Bedstripper ★ 2-4
2.6 Emergency CPR Release 2-5
2.7 End Panel Removal 2-6
2.8 Lifting Pole & Accessory Sockets 2-7
2.9 Profile Angle Indicators 2-7
2.10 Power Operation - Controls 2-8
2.11 Adjusting the Mattress Platform 2-10
2.12 Additional ACP Features 2-12
2.13 Battery Operation 2-14
2.14 Duty Rating Lockout 2-14

3 OPERATIONAL MAINTENANCE 3-1

3.1 General 3-1
3.2 Cleaning 3-1
3.3 Disinfecting 3-1

4 PREVENTIVE MAINTENANCE 4-1

4.1 General 4-1
4.2 Castors and Brakes 4-1
4.3 Backup Battery 4-1

5 TESTING 5-1

5.1 Power Operated Functions 5-1
5.2 Battery Operation 5-2
5.3 Manual Functions 5-2

6 TROUBLESHOOTING 6-1

7 SERVICING INSTRUCTIONS 7-1

7.1 General 7-1

7.2 Tools and Equipment 7-3

7.3 Brake Pedal – Replacement 7-4

7.4 Castors – Replacement 7-4

7.5 Castors – Adjustment 7-5

7.6 Power Supply and Battery– Replacement 7-6

7.7 Control Box – Replacement 7-7

7.8 Junction Box ★ – Replacement 7-8

7.9 Attendant Control Panel (ACP) – Replacement 7-9

7.10 Patient Handset – Replacement 7-10

7.11 Height Actuator – Replacement 7-10

7.12 Backrest Actuator – Replacement 7-11

7.13 Calf Actuator – Replacement 7-12

7.14 Thigh Actuator – Replacement 7-13

7.15 Power Supply Extension Cable – Replacement 7-14

7.16 CPR Cable – Replacement 7-15

7.17 Backrest Damper – Replacement 7-18

7.18 Dismantling the Bed 7-19

7.19 Assembling the Bed 7-23

7.20 Restoration of Paintwork 7-26

8 TECHNICAL DATA 8-1

9 TRANSPORTATION AND STORAGE 9-1

APPENDIX A - ASSEMBLY SPARES MANUAL

APPENDIX B – SAFE DISPOSAL OF GAS SPRINGS

APPENDIX C – ELECTROMAGNETIC COMPATIBILITY (EMC) INFORMATION

1 INTRODUCTION

1.1 About This Manual

This manual contains information on servicing and maintenance of the Huntleigh Healthcare **Enterprise™ 5000 Series** beds.

The manual comprises the following sections:

Section 1 - Introduction (this section): Includes a general description of the equipment with an explanation of the various features available, together with contact details for Huntleigh Healthcare around the world.

Section 2 - Operation: Contains instructions for using the main features and functions of the bed.

Section 3 - Operational Maintenance: Describes routine procedures and checks to ensure correct operation during the service life of the equipment.

Section 4 - Preventive Maintenance: Gives details of regular, periodic maintenance actions to ensure correct operation of the equipment.

Section 5 - Testing: Defines a serviceability test to verify correct operation of the equipment if function is suspect or following any maintenance or servicing procedure.

Section 6 - Troubleshooting: Contains details of fault symptoms, possible causes and suggested actions to rectify the problem.

Section 7 - Servicing Instructions: Contains procedures for removal and installation of replaceable parts and sub-assemblies.

Section 8 - Technical Data: Contains a list of electrical and dimensional data for the equipment and components.

Section 9 - Transportation and Storage: Lists preferred environmental conditions for the transporting, storage and use of the equipment.

Appendix A - Assembly Spares Manual: contains product assembly drawings and parts lists for the identification of replaceable parts.

Appendix B - Instructions for the safe disposal of gas springs.

1.2 Product Description

The Enterprise™ 5000 range are electrically-operated acute care beds with multiple functions to provide the best nursing position for both patient and carer.

1.2.1 Standard Features

- Four section electrically-operated profiling mattress platform with independent adjustment of backrest angle, thigh section angle and calf section angle
- Simultaneous adjustment of backrest and thigh sections by pressing one button (BioContour®)
- Electrically-operated height adjustment
- Pushbutton selection of Vascular or Fowler (chair) mode
- Electrically-operated Trendelenburg and reverse Trendelenburg tilt
- Separate control handsets for patient and carer
- ¾ length folding safety sides
- Battery backup for all electrical functions
- Removable moulded plastic mattress platform sheets
- Integral mattress platform extension

1.2.2 Optional Features ★

- Pull-out bedstripper
- Radio-translucent backrest with X-ray cassette tray
- 125mm/150mm single wheel, or 150mm twin wheel castors
- Choice of safety side styles
- Locking head and foot end panels
- Head end panel mounted on base (B and C series) or mattress platform (D and E series)
- Choice of colours, silver or mint green
- Underbed lighting

Figure 1-1 Enterprise™ 5000B bed

All power-operated functions are operated by push button controls. The user must select a function, then the press the up or down Direction key to drive the bed to the required position.

The patient control handset is attached to a flexible cable and may be positioned on either side of the bed. The patient's controls adjust backrest angle and leg elevation, including Bio-Contour®.

The bed has an attendant control panel (ACP), attached to flexible cable and located at the foot end of the bed, from which the power operated functions can be disabled; operation of the bed by the patient is thus at the discretion of the carer. The ACP contains pushbutton controls for all bed movements including tilt, CPR and Vascular/Fowler profile selection. An on/off switch for the optional underbed light is also provided.

The electrical actuators consist of a screw and nut assembly driven by a 24V d.c. motor and gearbox. Power for the actuators is derived from an a.c. power supply located below the head end of the bed. The electronic control unit is mounted underneath the seat section.

1.3 Contact Information

For all service and warranty information on this product, please contact your local Huntleigh Healthcare subsidiary.

Africa

Huntleigh Africa (Pty) Limited
120 Willem Cruywagen Avenue
Klerksoord
Pretoria

T. +27 (0)12 542 4680
F. +27 (0)12 542 4982

Australia

Huntleigh Healthcare Pty Limited
78 Forsyth Street
O'Connor
Western Australia 6163

T. +61 (0)89 337 4111
F. +61 (0)89 337 9077

Belgium

Huntleigh Healthcare NV/SA
Evenbroekveld 6
B-9420 Erpe-Mere

T. +32 (0)53 60 73 80
F. +32 (0)53 60 73 81

Denmark

Huntleigh Healthcare A/S
Vassingerødvej 52
3540 Lynge

T. +45 (0)4913 8486
F. +45 (0)4913 8487

France

HNE Médical SA
451 Chemin de Champivost
BP20
69579 Limonest Cedex

T. +33 (0)4 78 66 62 66
F. +33 (0)4 78 66 62 67

Germany

HNE Huntleigh Nesbit Evans
Healthcare GmbH
Im Hülsenfeld 19
40721 Hilden

T. +49 (0)2103 97110
F. +49 (0)2103 971180

India

Huntleigh Healthcare India Pvt Ltd.
8 Shah Industrial Estate
Off Veera Desai Road
Andheri (West)
Mumbai

T. +91 (0)225 694 6697
F. +91 (0)225 694 6698

Japan

Huntleigh Healthcare Japan KK
4-1-5 Goko-Dohri
Kohei Building
Chuo-ku
Kobe City 651-0087

T. +81 (0)78 23 18735
F. +81 (0)78 23 18736

Latin America

Huntleigh Healthcare Latin America Inc.
2602 North West 97th Avenue
Miami
FL 33172
USA

T. +1 (0)305 463 0526
F. +1 (0)305 463 0216

Middle East

Huntleigh Middle East Office
Apartment 307
Sh Ahmed Bin Juma
Almaktoom Bulding
Sh Zayed Road
Dubai, UAE

T. +971 (0)4 321 0200
F. +971 (0)4 321 0300

Netherlands

Huntleigh Healthcare BV
Antennestraat 45
1322 AH Almere
Holland

T. +31 (0)36 533 5588
F. +31 (0)36 547 5075

New Zealand

Huntleigh Healthcare Ltd
Unit 6/38 Eaglehurst Road
Elleslie
Auckland 1005

T. +64 (0)9 525 2488
F. +64 (0)9 525 2443

Singapore

Huntleigh Healthcare Pte Limited.
6 Harper Road
#06-06 Leong Huat Building
Singapore 369674

T. +65 (0)6289 4511
F. +65 (0)6289 3430

Spain

Huntleigh Healthcare SL
Poligono Industrial de la Creueta
Calle de la Creueta
08130 Santa Perpetua de la Mogoda
Barcelona

T. +34 (0)93 574 5754
F. +34 (0)93 574 5861

Sweden

Huntleigh Healthcare AB
Limhamnsgårdens allé 15
PO Box 30012
SE-200 61 Limhamn

T. +46 (0)40 49 57 80
F. +46 (0)40 49 43 75

Switzerland

HNE Médical SA
Route de Fribourg 5
Case Postale 144
1723 Marly

T. +41 (0)26 436 2059
F. +41 (0)26 436 2060

United Kingdom

Huntleigh Healthcare Limited
Nesbit Evans Products Division
Woden Road West
Wednesbury
WS10 7BL

T. +44 (0)121 556 1511
F. +44 (0)121 502 2092

U.S.A.

Huntleigh Healthcare LLC
40 Christopher Way
Eatontown
NJ 07724

T. +1 (0)732 578 9898
F. +1 (0)732 578 9889

If there is no Huntleigh Healthcare subsidiary in your country, contact Huntleigh Healthcare UK for details of local agents and distributors in your area.

2 OPERATION

2.1 Installation

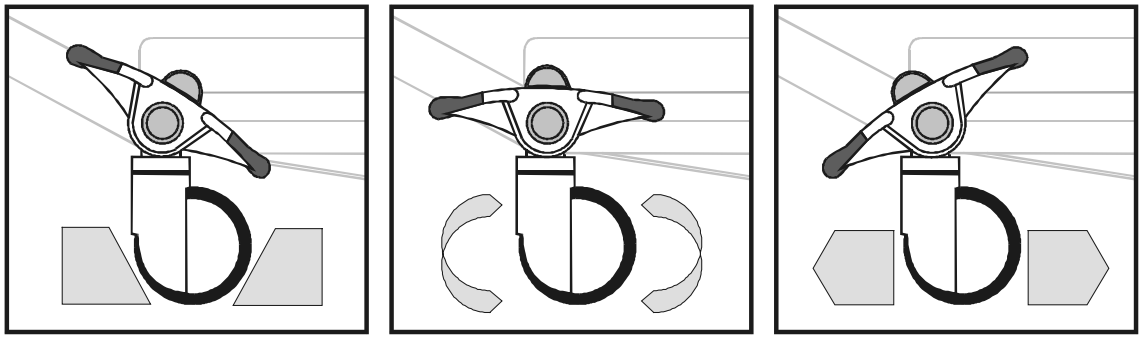
Connect the bed's electrical supply cable to a suitable outlet socket.

2.2 Brakes and Steering

At either end of the bed is a pair of linked brake levers that operate on all four castors. Each lever has a green pedal and a red pedal.

- With the red pedal depressed, the brakes are applied (Figure 2-1, A).
- When neither pedal is depressed, all four castors can rotate and swivel (Figure 2-1, B).
- With the green pedal depressed, one steering castor is engaged so that it cannot swivel. The bed can then be steered by pushing from the opposite end (Figure 2-1, C).

☞ *The steering castor is fitted at the head end of the bed on the patient's right-hand side, unless otherwise indicated on the product specification label.*



A. BRAKE B. FREE C. STEER

Figure 2-1 Brakes and steering

2.3 Folding Safety Sides

To lower the safety sides:

Hold the top rail (D) behind the hinge point. Pull the operating knob (E) and lower the safety side. The safety side folds down towards the foot end of the bed

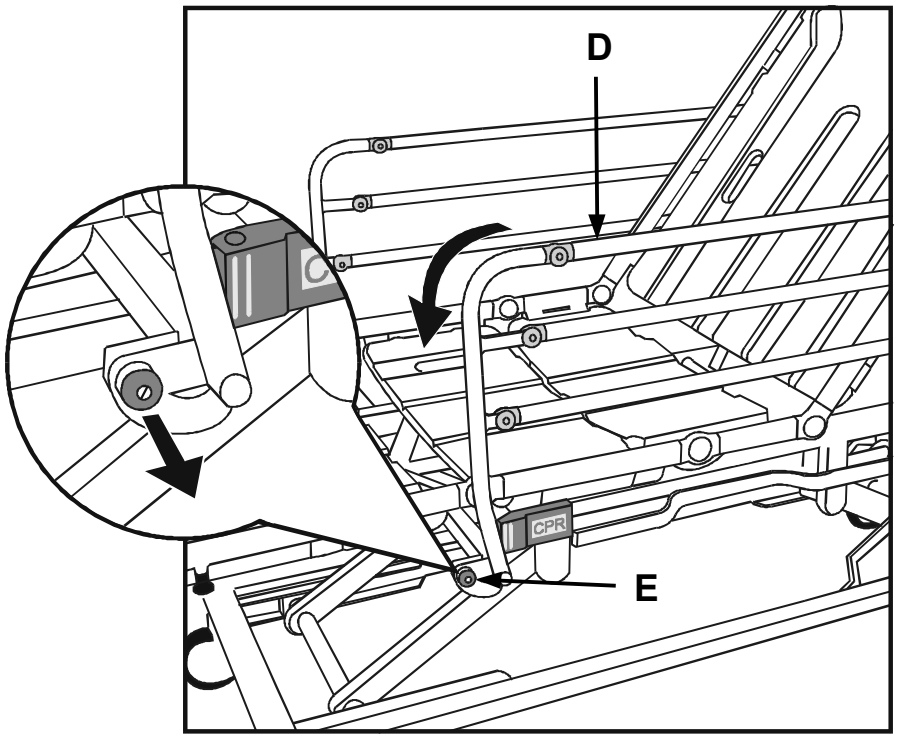


Figure 2-2 Folding safety side operation

To raise the safety sides:

Hold the top rail (D). Pull the safety side up until it locks in the raised position.

2.4 Bed Extension

To extend the mattress platform:

If the bed is tilted, use the bed controls to level the mattress platform - refer to Section 2.11- Power Operation.

Pull down the catches (F) on the underside of the mattress platform and rotate them a quarter turn to unlock the extension.

Pull the extension out as far as it will go (G).

Rotate the catches (F) until they spring back up into the locked position.

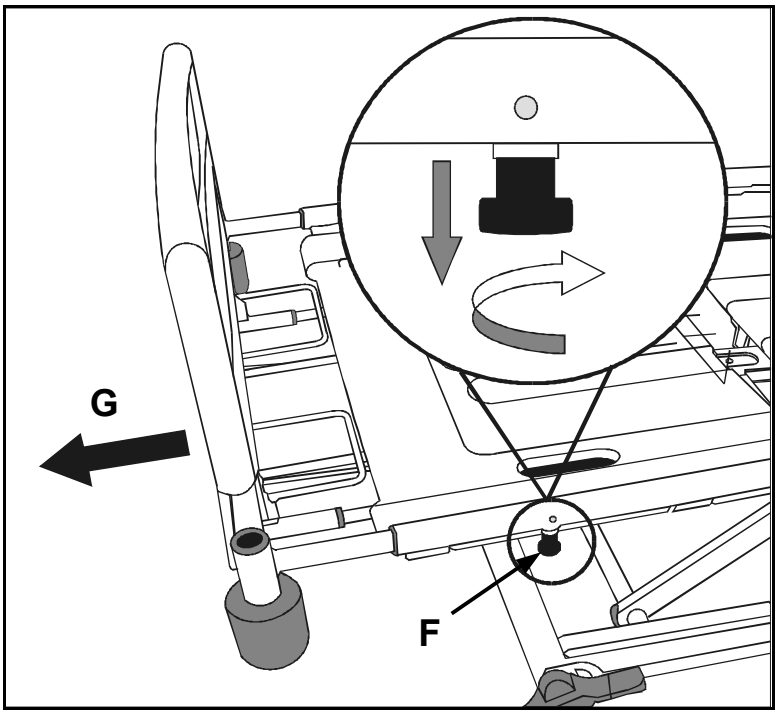


Figure 2-3 Extending the bed

To retract the mattress platform:

Pull down the catches (F) on the underside of the mattress platform and rotate them a quarter turn to unlock the extension.

Push the extension back in as far as it will go.

Rotate the catches (F) until they spring back up into the locked position.

WARNING

Install a mattress extension (squab) when the bed is extended.

2.5 Bedstripper ★

The bedstripper, which is used for supporting clean linen when the bed sheets are being changed, is located at the foot of the bed.

Pull the bar away from the bed as far as it will go.

When not in use, push the bedstripper back under the bed until it latches in position.

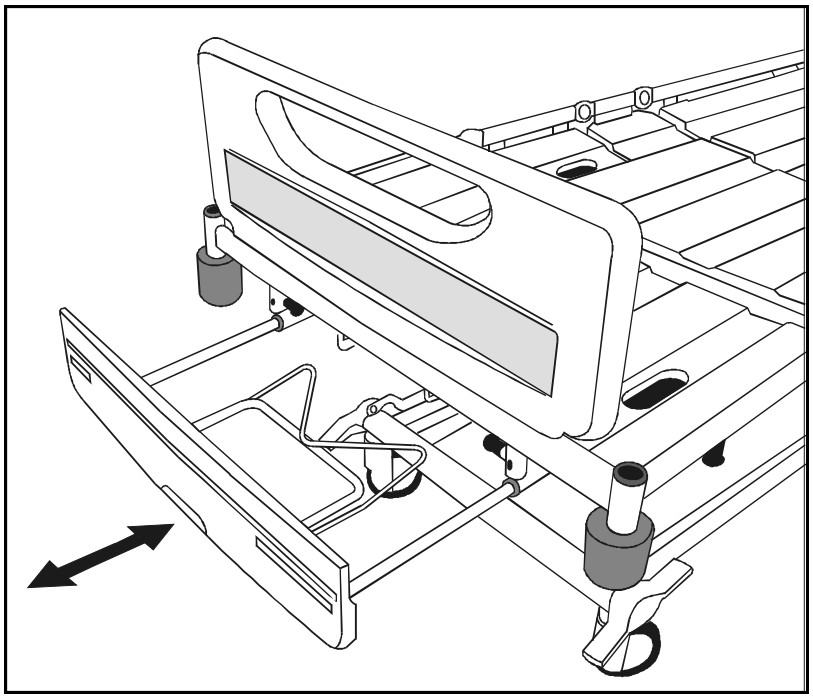


Figure 2-4 Bedstripper in extended position

Caution

The bedstripper load should not exceed 20kg (44 lbs.)

2.6 Emergency CPR Release

Manual CPR release handles are situated either side of the bed, below the calf section.

To lower the backrest (H) in an emergency, pull the CPR release handle (J).

Alternatively, press and hold the CPR button on the Attendant Control Panel; refer to Subsection 2.13.2.

WARNING

The backrest can fall quickly. Keep hands clear to avoid trapping.

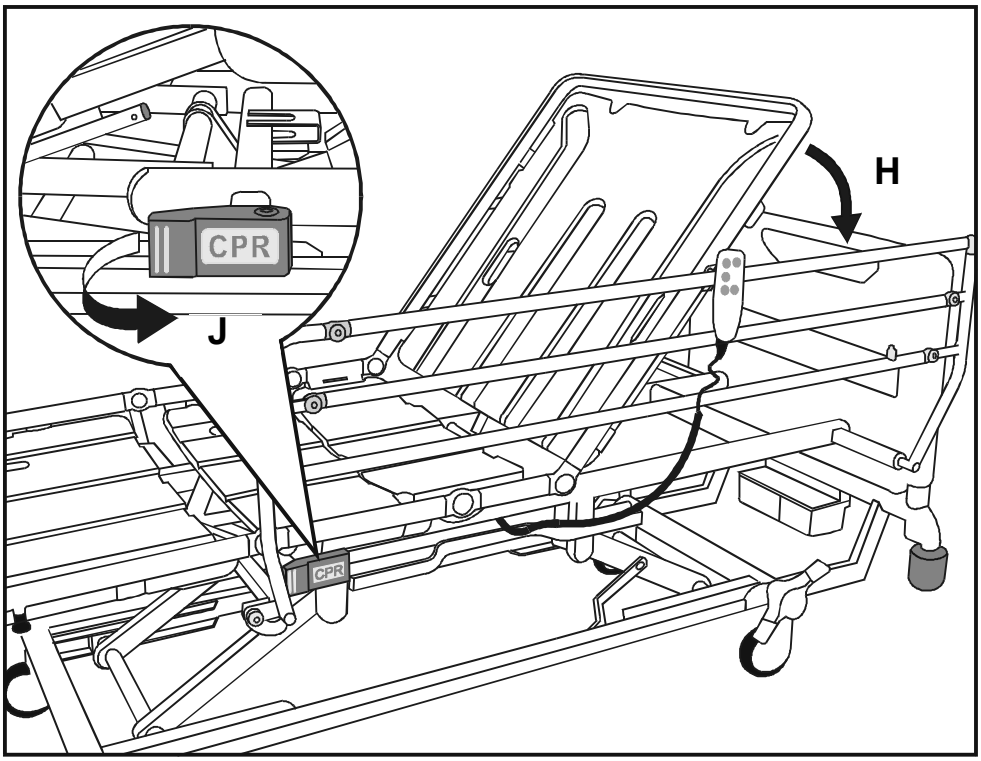


Figure 2-6 CPR emergency release handle

2.7 End Panel Removal

The end panels can be lifted off the bed for access to the patient.

★ One or both end panels may be held in place with spring catches. To remove this type of panel:

1. *Foot end panel only:* pull out the bedstripper (see Section 2.5) to gain access to the catches (K).
2. Pull out the two catches (K) and rotate them a quarter turn.
3. Lift the end panel away from the bed.
4. Return the bedstripper to the closed position.

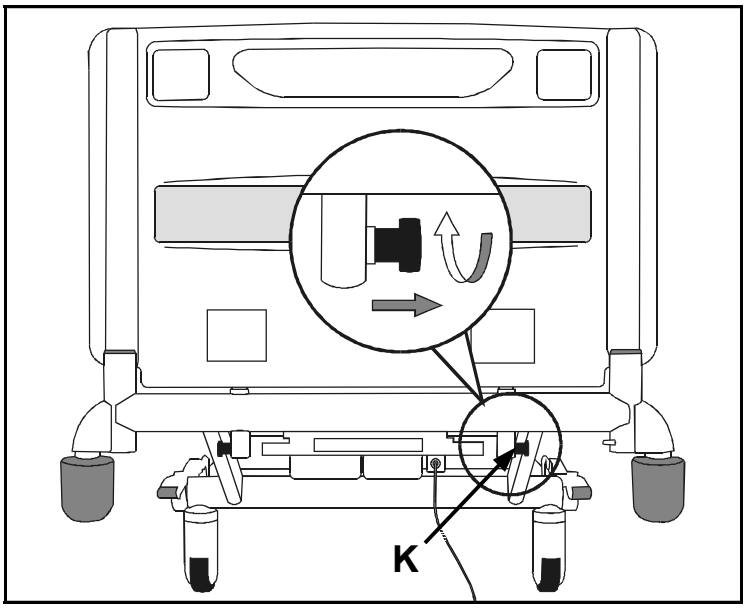


Figure 2-7 End panel removal (head end)

To replace the end panels:

1. Replace the end panels on the bed.
2. *Foot end panel only:* pull out the bedstripper (see Section 2.5) to gain access to the catches (K).
3. Rotate the catches (K) until they spring back into the locked position.
4. Return the bedstripper to the closed position.

2.8 Lifting Pole & Accessory Sockets

Two lifting pole sockets are located at the head end of the mattress platform. They can also be used for other approved accessories, e.g. IV poles.

Two smaller accessory sockets are provided at the foot end of the bed. These can be used for fitting traction equipment etc.

2.9 Profile Angle Indicators

The hinge points of the backrest and upper leg section have markings to indicate the angle of elevation above the mattress platform. These markings are approximate and should only be used as a guide.

2.10 Power Operation - Controls

2.10.1 Patient Handset

The Patient's control handset operates three bed functions as shown below.

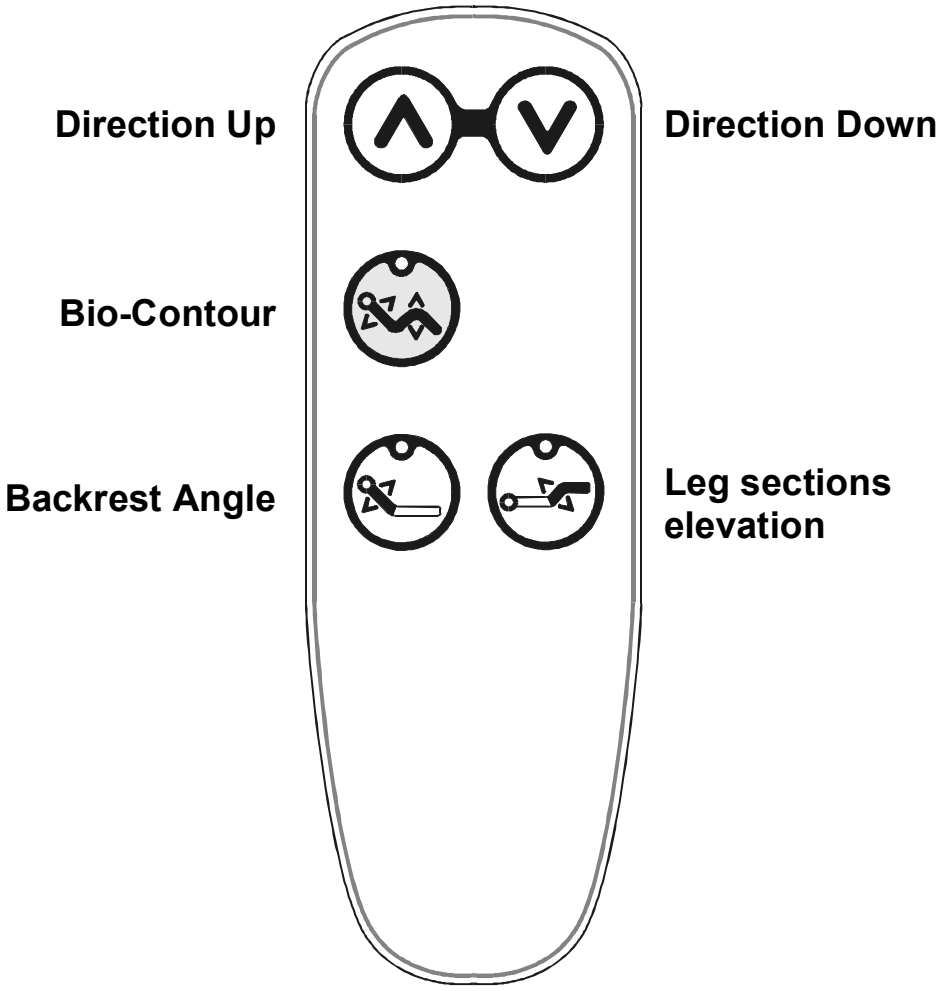


Figure 2-8 Patient control handset

Bio-Contour® simultaneously adjusts backrest and leg elevation to achieve a comfortable sitting position

2.10.2 Attendant Control Panel (ACP)

The Attendant Control Panel controls all bed functions as shown below.

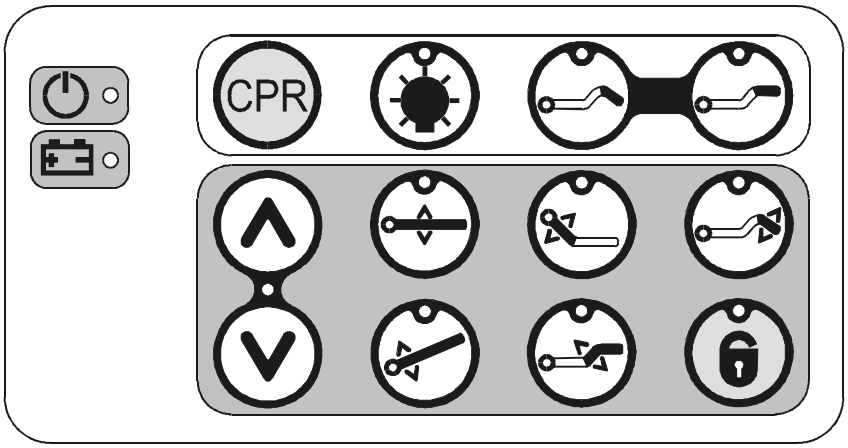


Figure 2-9 Attendant Control Panel (ACP)

Power on indicator. Lit green when the bed is connected to the electricity supply

Battery indicator.
Refer to Section 2.14, Battery Operation.

Fowler or Vascular mode selection

CPR function

Underbed light ★

FUNCTION KEYS

Mattress platform height

Backrest angle

Tilt

Leg sections elevation

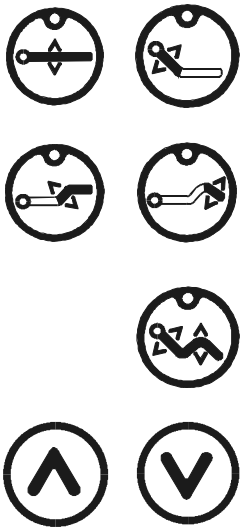
Kneebreak angle

Function lockout

Direction keys

2.11 Adjusting the Mattress Platform

The control keys are illuminated from behind to assist operation in darkened rooms.



Press the appropriate key to select the Function required:

- Mattress platform height
- Backrest angle
- Leg sections elevation
- Kneebreak angle
- Bio-Contour®

The indicator above the key will light green.

Press and hold either Direction key until the required position is achieved. Movement will continue until the Direction key is released or the limit of travel is reached.

If neither Direction key is pressed within five seconds of pressing a Function key, the indicator above the Function key will go out and the function must be selected again.

Tilt

Head down tilt (Trendelenburg) and foot down tilt (reverse Trendelenburg) can be applied using the Attendant Control Panel.

Press the Tilt Function key. The indicator above it will light green.

Press and hold either Direction key until the required tilt angle is achieved. The mattress platform will continue to move until the Direction key is released or the limit of travel is reached.

When returning from a tilted position, the mattress platform will pause briefly at the horizontal position before continuing its movement.

Extra-Low Height

When the mattress platform is at low height, the bed can be lowered by a further 8cm (3 ins.) as follows:

Press and hold the mattress platform height Function key; at the same time, press and hold the Down Direction key. Hold down both keys until the mattress platform stops moving.

Caution

At extra-low height, clearance below the bed is reduced. Take care when using patient hoists with the bed in this position.

2.12 Additional ACP Features

2.12.1 Function Lockout

Under certain circumstances it may be necessary to prevent operation of the bed controls, e.g. when traction equipment is being used.

To selectively disable bed functions:

Press the Function Lockout key on the Attendant Control Panel. The indicator above the Lockout key will light.

Press the ACP Function key corresponding to the function to be disabled. The indicator above the key will light red.

To reinstate previously disabled bed functions:

Press the Function Lockout key on the Attendant Control Panel. The indicator above the Lockout key will light.

Press the ACP Function key corresponding to the function to be reinstated. The indicator above the key will go out.

If no Function key is pressed within five seconds of pressing the Lockout key, the indicator above the Lockout key will go out and the Lockout function must be selected again.

To disable ALL bed functions simultaneously:

Press and hold the Function Lockout key for five seconds.

Bed functions can be reinstated individually as described above.

2.12.2 CPR Emergency

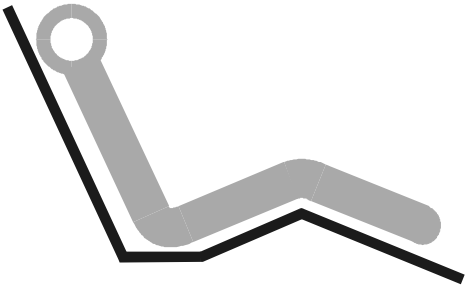
Press and hold the CPR key. This will flatten the mattress platform and lower it to a suitable height for cardio-pulmonary resuscitation to be carried out.

2.12.3 Underbed Light ★

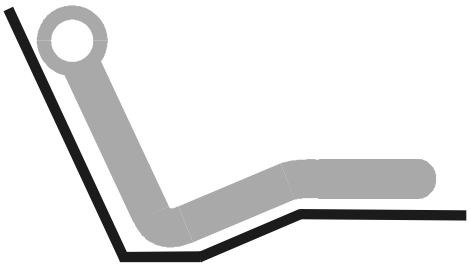
Press this key to turn the underbed light on or off. The indicator above the key lights amber when the underbed light is on.

2.12.4 Fowler/Vascular Mode Selection

When the Bio-Contour function is used to profile the mattress platform, the bed can be placed in one of two configurations:



In *Fowler* (chair) mode, the calf section is angled down and the legs are lowered below the mattress platform.

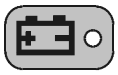


In *Vascular* mode, the calf section remains horizontal and the legs are raised above the mattress platform.

Press the left-hand key to select Fowler mode, or the right-hand key to select Vascular mode. An amber indicator will light above the selected mode.

2.13 Battery Operation

The backup battery is automatically switched on if the bed is disconnected from the electricity supply. The battery provides emergency operation of all powered functions for short periods of time, e.g. while the bed is being moved between wards.



The battery indicator on the ACP lights green to indicate when the backup battery is charging correctly.

The battery indicator on the ACP lights red to indicate when the battery is flat or not charging.

If a "beeping" sound is heard while operating the bed, this indicates that the backup battery is at low charge.

If the battery indicator lights red or the beeping sound is heard, connect the electrical supply cable to a suitable outlet socket for 24 hours to recharge the battery.

Caution

To ensure that battery is kept fully charged, and prevent damage to the battery, the bed must be connected to the electricity supply at all times during normal use.

2.14 Duty Rating Lockout

If the controls are operated frequently over a short period of time, the duty rating of the electrical system may be exceeded; all functions are disabled and the indicator above each function key will light red.

To restore normal operation, disconnect the bed from the electricity supply for five minutes. Reconnect the bed to the electricity supply, then follow the procedure described in subsection 2.13.1, *To reinstate previously disabled bed functions*.

3 OPERATIONAL MAINTENANCE

3.1 General

The equipment has been designed to be virtually maintenance-free between service intervals. The degree of periodic cleaning and maintenance necessary will be determined by use and condition.

Examine the bed for obvious signs of damage. If found take appropriate remedial action.

WARNING

Disconnect the bed from the electricity supply before carrying out cleaning procedures.

3.2 Cleaning

Wearing suitable protective clothing, clean all surfaces with a disposable cloth soaked in a neutral detergent and hand hot water.

The mattress platform sheets and head/foot end panels can be removed from the bed and cleaned separately.

Start by cleaning the upper sections of the bed and work along all horizontal surfaces. Work methodically towards the lower sections of the bed and clean the wheels last. Take extra care to clean areas that may trap dust or dirt.

Rinse with clean water and dry with disposable paper towels.

Allow the cleaned parts to dry before replacing the mattress.

3.3 Disinfecting

After cleaning the bed as described above, wipe all surfaces with sodium dichloroisocyanurate (NaDCC) at a concentration of 1,000 parts per million (0.1%) of available chlorine.

In the case of pooling body fluids, e.g. blood, the concentration of NaDCC should be increased to 10,000 parts per million (1%) of available chlorine.

Refer to Huntleigh Healthcare's Customer Infection Control procedures.

Caution

Do not use abrasive compounds or pads.

Do not use phenol-based disinfectant solutions.

4 PREVENTIVE MAINTENANCE

The following preventive maintenance checks and procedures should be carried out every 12 months.

All service and repair activities must only be carried out by properly qualified and trained persons approved by Huntleigh Healthcare.

Disposal of product and components should be compliant with local regulations.

WARNING

Before starting any maintenance activity, disconnect the bed from the electrical power supply. The bed sections will still operate on battery power unless the function has been disabled on the ACP.

Avoid skin contact with lubricants. Gloves and protective clothing should be worn when carrying out maintenance work.

4.1 General

Examine the bed for obvious signs of damage. Make sure that all visible fixings and fastenings are secure and not missing.

Examine all flexible cables for cuts, abrasions, kinks or other deterioration. Check the electrical supply plug and cable for damage. If either the plug or cable is damaged, both must be replaced as a complete assembly. Under no circumstances should the integral moulded plug be replaced with a rewireable plug.

4.2 Castors and Brakes

Check the brakes for efficient operation.

Check that the steering lock operates effectively.

Poor braking or steering performance indicates that one or more castors require adjustment or replacement.

4.3 Backup Battery

If, when the bed is operated a beeping sound is heard, this indicates a low charge condition. The bed should be reconnected to the electricity supply for a minimum of 24 hours, in order to recharge the batteries.

Every six months, check the condition of the batteries using the following

procedure:

1. Ensure that the bed has been connected to the electricity supply for 24 hours.
2. Disconnect the bed from the electricity supply.
3. Apply a load of 80kg (180lbs.) to the mattress platform.
4. Raise and lower the mattress platform, from minimum to maximum height, three times.
5. If the bed does not operate satisfactorily in step 4, perform steps 1 to 4 again.

If the bed again fails to operate satisfactorily, the batteries are not holding sufficient charge and should be replaced. Refer to Chapter 7, Servicing Instructions.

5 TESTING

The following serviceability tests should be performed before returning the bed to use after service, or if any function is suspect.

These instructions should be read in conjunction with Chapter 2 of this manual.

If the result of any test is unsatisfactory, investigate and take the appropriate remedial action. Refer to Chapter 6, Troubleshooting and Chapter 7, Servicing Instructions.

☞ *All references to left or right of the bed are when viewed from the head end (i.e. by a patient lying on the bed).*

WARNING

If any electrical assembly or wiring has been replaced or repaired, the appropriate electrical safety checks must be made.

Keep clear of the bed when it is being operated. Severe injury can result from crushing by moving parts.

5.1 Power Operated Functions

a) Check that the ACP operates all bed functions (height, backrest angle, leg elevation, kneebreak angle, tilt and Bio-Contour®). Verify satisfactory operation over the full range of movement as specified in Chapter 8, Technical Data. Verify that the actuators are de-energised when either Direction key is released or the limit of travel is reached.

b) Check that the patient handset operates the backrest, leg elevation and Bio-Contour® functions.

c) Verify that the lockout function on the ACP disables the appropriate functions on both the ACP and patient handset.

d) Check that both vascular and Fowler modes can be selected on the ACP, and that the lower leg section moves as expected in either mode.

e) Use the ACP to raise the backrest and leg sections, and raise the mattress platform to near top height. Press and hold the CPR button and verify that the mattress platform returns to a flat, low height condition.

f) Check the operation of the underbed lights.★

5.2 Battery Operation

a) Disconnect the bed from the electricity supply.

b) Check the functions of bed height, backrest angle, leg elevation and tilt.

c) Test the battery as described in Section 4.3.

5.3 Manual Functions

5.3.1 Brakes and Steering

Refer to Section 2.2. Check the brakes for efficient operation. Apply the brakes and push the bed. None of the three braking castors should rotate. Place the pedals in the "steer" position and verify that the tracking (steering) castor is engaged and does not swivel.

5.3.2 Folding Safety Sides

Refer to Section 2.3. Check operation of both safety sides. Verify that the release and latching mechanisms are effective and that the sides are securely locked when raised.

5.3.3 Bed Extension

Refer to Section 2.4. Check that the bed extension extends and retracts smoothly and easily. Make sure the catches operate easily and that the extension locks securely in both the normal and extended positions.

5.3.4 Bedstripper ★

Refer to Section 2.5. Check that the bedstripper slides in and out easily. Test the latching mechanism by putting the bed into maximum foot down tilt – the bedstripper should remain in the stored position.

5.3.5 Emergency CPR Release

Refer to Section 2.6. Use the patient handset to raise the backrest to about 60°. Operate either CPR release handle and verify that the backrest descends to a horizontal position in a smooth, controlled manner. Repeat to test the other CPR release handle.

6 TROUBLESHOOTING

The following table identifies some fault symptoms, their possible cause and suggested remedial action.

Test step	Symptom	Possible cause	Action
5.1	All actuators inoperative	Power disconnected and batteries discharged	Make sure electrical supply cable is connected to a suitable outlet socket.
		Fuse blown and batteries discharged	Check fuse in electrical supply plug (UK only)
		Patient handset disconnected	Check wiring between handset, junction box and control box.
		ACP disconnected	Check wiring between ACP, junction box and control box.
5.1	One actuator inoperative	Actuator plug disconnected	Check actuator cable is plugged into both the control box and the actuator
5.3.1	Brakes and/or steering lock not effective	Worn or damaged castor(s)	Adjust or replace castor(s)
5.3.2	Safety side release/locking mechanism defective	Safety side release cable stretched or worn	Replace safety side release cable
5.3.5	Emergency CPR release inoperative	CPR release cables stretched or worn	Adjust or replace CPR release cables

7 SERVICING INSTRUCTIONS

WARNING

Before starting any service or maintenance procedures, ensure that the equipment has been adequately decontaminated.

Avoid skin contact with lubricants. Rubber gloves and protective clothing should be worn when carrying out maintenance work.

The bed and its sub-assemblies are heavy and could cause serious injury or death by crushing. When working beneath the mattress platform, the equipment must be properly supported with suitable lifting devices, blocks or stands.

Use only replacement parts that are approved by Huntleigh Healthcare.

7.1 General

The servicing procedures and data given in this section include instructions for:

- Replacement of specific components and sub-assemblies
- Dismantling and assembly of the main structure
- Restoration of paint finish

Minor procedures considered to be self-evident have not been included.

Do not disassemble more than is necessary to replace a defective item.

Remove old Loctite® and other adhesives from components before re-assembly. Apply Loctite® adhesive where specified in Appendix A. Before applying Loctite®, clean and degrease parts using a suitable volatile solvent, e.g. methylated spirits.

The hinges between the various parts of the bed incorporate self-lubricating bushes moulded in electrically-conductive plastic and do not require lubrication.

Throughout this section, numbers given in brackets refer to the Assembly Spares Manual drawing sheet number and item number for the part. Thus (03-5) represents Item 5 on Sheet 03.

To facilitate access for carrying out servicing procedures, remove the mattress platform sheets and head/foot end panels from the bed.

All references to left or right of the bed are when viewed from the head end (i.e. by a patient lying on the bed).

Before returning the equipment to use following repair or servicing:

- Carry out a visual inspection for signs of damage, paying particular attention to cables and paintwork.
- Perform a serviceability test as described in Chapter 4.
- Clean the equipment as described in Chapter 2.

Caution

After replacing any cable or actuator, check that none of the cables are kinked, strained or pinched. Adjust the cables to remove any slack that could become entangled in the bed mechanism. Verify that these conditions are maintained over the full range of movement of the bed sections.

7.1.1 Actuator Cable Clips

Where cables connected to actuators they are held in place by retaining clips (A). These are fitted to the cable adjacent to the electrical connector (B).

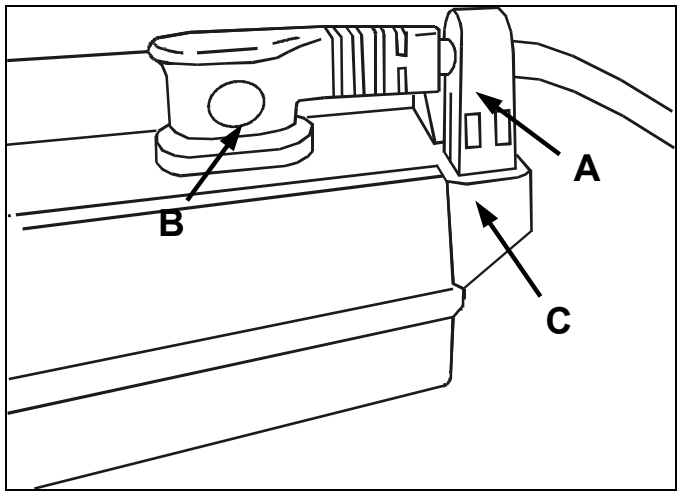


Figure 7-1 Actuator cable retaining clip

To release the clip, squeeze the sides together firmly and pull it away from the actuator.

To refit the clip, push it into the receptacle (C) on the actuator body until it "clicks" into position.

7.1.2 Sealing Rings

Where electrical cables enter actuators, junction boxes or the control box, the plug has a rubber sealing ring to ensure the connection remains watertight.

Apply a small amount of lubricant, e.g. petroleum jelly, to the sealing rings to make it easier to insert the plugs. Do not allow excess lubricant to contaminate the electrical contacts.

7.2 Tools and Equipment

In addition to normal workshop tools, the special tools and equipment listed below will be required for servicing.

Item	Description	Part No.	Use
1	Hoist, SWL 180kg (400 lbs.)	L6J/01/180	General lifting
2	Sling straps (2)	-	General lifting
3	Brake cam rotating tool	745.04	Fitting castors

7.2.1 Using the Hoist

When using the hoist to lift any part of the bed, always ensure that the sling straps are applied to main frame sections and do not bear upon components, wiring or minor fabrications, e.g. brackets or safety sides.

When lifting the entire bed or the sub-frame assembly, first remove any accessories and lift off the head panel and the foot panel. Pass both sling straps around main members of the sub-frame.

7.2.2 Servicing Kit ENT-ACC23

The servicing kit accessory, part number ENT-ACC23, contains various items which may be used to simplify common maintenance procedures, e.g. replacing castors and actuators. Instructions for use are provided with the kit.

All procedures in this service manual can be carried out without the servicing kit accessory.

7.3 Brake Pedal – Replacement

7.3.1 Removal

a) Apply the brakes. Use a small flat bladed screwdriver to lever off the brake pedal cap (12-6) and brake link cover (12-5) from the damaged pedal.

b) Prise off and discard the starlock washer (12-8) then drive out the clevis pin (12-7) to release the brake link fabrication (12-9) from the brake pedal (12-3)(12-4).

c) Remove the socket screw (12-11) and pull the brake pedal off the brake bar (12-10).

7.3.2 Installation

a) Position the brake pedal (12-3)(12-4) on the brake bar (12-10). Ensure the correct brake pedal is fitted (i.e. left or right hand) and that the red end points down.

b) Fit the socket screw (12-11) to secure the pedal. Fit clevis pin (12-7) with its head inboard to attach the pedal to the brake link fabrication and secure with a new starlock washer (12-8).

c) Refit the brake pedal cap (12-6) and brake link cover (12-5).

7.4 Castors – Replacement

7.4.1 Removal

a) Remove the brake pedal adjacent to the faulty castor as given in Subsection 7.3.1. Use pliers to withdraw the brake bar (12-10) from the base fabrication (01-1).

b) Use the hoist to lift the end of the bed with the faulty castor by about 25cm (10 ins.). Use suitable blocks or stands to support the raised end of the bed.

c) Remove two button head socket screws (12-13) and collect two Nord-Lock washers (12-12) to release the castor from the base fabrication.

7.4.2 Installation

a) Use the brake cam rotating tool to position the castor operating cam in the “brake” position (i.e. so that the castor does not rotate or swivel).

b) Install the castor into the base fabrication (01-1) and secure it with two Nord-Lock washers (12-12) and button head socket screws (12-13).

c) Slide the brake bar (12-10) through the base fabrication, ensuring that it engages both castors and the remaining brake pedal.

d) Refit the brake pedal as given in Subsection 7.3.2. Remove the blocks or stands and lower the bed to the floor. Check that the brakes and steering operate correctly.

7.5 Castors – Adjustment

If the brake on one castor is ineffective, its operation may be improved by adjusting the castor as follows:

a) Remove the castor from the bed, as given in Subsection 7.4.1. Mark the adjusting nut (Figure 7-2, C) to indicate the head end of the bed.

b) To tighten the brake, turn the nut 180° anti-clockwise (A). On the tracking castor, the steering lock can be tightened by rotating the nut 180° clockwise (B).

c) Replace the castor as given in Subsection 7.4.2, making sure that the mark on the adjusting nut is at the head end of the bed.

d) Check the operation of the brakes and steering. If necessary, repeat steps b) to c) until correct operation is achieved. Turn the adjusting nut (C) by only 180° each time; do not over adjust.

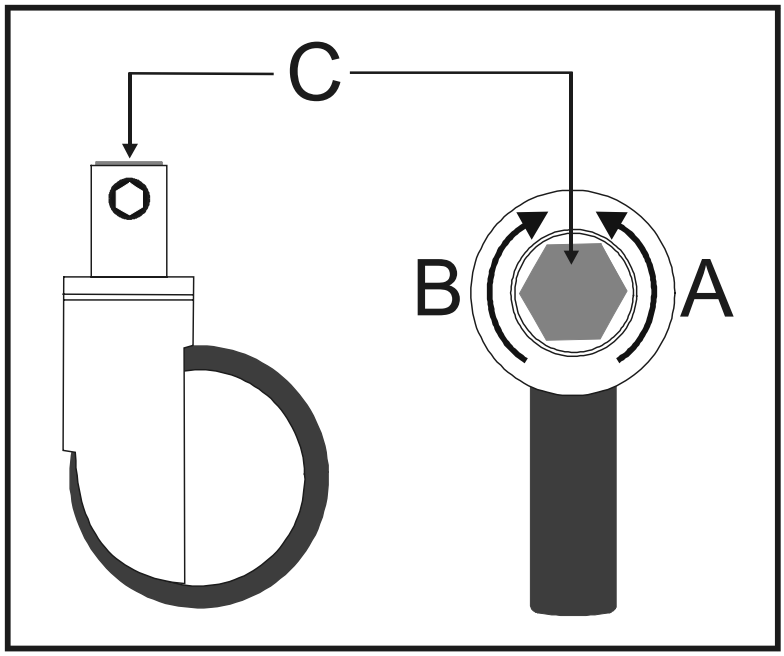


Figure 7-2 Castor adjustment

7.6 Power Supply and Battery– Replacement

WARNING

Lead-acid batteries are a potential environmental and health hazard. Store batteries in accordance with manufacturer's instructions. Dispose of unserviceable batteries safely in accordance with local authority regulations.

For beds with underbed lighting, replace references to Sheet 11 with Sheet 13.

7.6.1 Removal

a) The battery (11-7) and power supply (11-4) are attached to the mounting plate (11-10) by plastic clips. To remove the battery, depress the two clips and slide the battery towards the foot end and off the mounting plate.

b) Use a small screwdriver to depress the tab in the locking ring (11-06). Disconnect the electrical supply cable (11-15)/(11-16) from the power supply.

c) Undo the hex head bolt securing the cable clamp and earth bonding straps (11-13)(11-28) to the bracket (11-23). Collect the nut (11-20) and serrated washer (11-19). Do not remove the cable clamp from the extension cable.

d) Prise out the locking ring (11-27) and disconnect the extension cable (11-5) from the power supply flying lead. Depress the two plastic clips and slide the power supply towards the foot end and off the mounting plate.

7.6.2 Installation

a) Attach the power supply (11-4) to the mounting plate (11-10) by sliding it into position until the fixing lugs engage and the fixing clips "click" into place. Make sure the power supply is flush to the mounting plate.

b) Connect the extension cable (11-5) to the power supply flying lead and fit the locking ring (11-27), using a small screwdriver to "click" it into place. Connect the electrical supply cable (11-15)/(11-16), making sure the locking ring tab (11-6) locates in the slot.

c) Position the cable clamp (11-17), with the extension cable attached, on the base bracket. Make sure the lug on the cable clamp fits through the smaller of the two holes.

d) Fit the hex head bolt (11-18) through the cable clamp and base bracket. From beneath, fit the serrated washer (11-19) and earth bonding straps (11-13)(11-28) and secure with the nut (11-20). Tighten firmly.

The serrated washer must be fitted between the earth bonding straps and base bracket to ensure electrical continuity.

e) Slide the battery (11-7) onto the mounting plate, making sure that the battery housing lies flat against the mounting plate and the two-pole battery connector engages with the socket on the power supply.

7.7 Control Box – Replacement

7.7.1 Removal

a) Raise the bed to top height if possible, this will make it easier to access the underside of the mattress platform. Disconnect the backup battery as given in Subsection 7.6.1. a)

b) Remove the self-tapping screw (07-32) from the top of the control box cover (07-30). Slide the cover down off the backplate (07-31) to expose the control box (07-36).

c) Undo two panhead screws (07-33) and collect two washers (07-34) and two Nyloc nuts (07-35). Drop the control box off the backplate so it can be accessed from below the mattress platform.

d) Remove the cable retainer strip from the front of the control box as follows: pull out the ends of the retainer strip to release the clips, then pull the retainer strip off the control box.

e) Make a note of which cable is connected to each socket. Unplug the five actuator cables (11-11)(11-25)(11-26), two network cables (13-32)(13-33)★ and power supply extension cable (11-5). If the cables are bundled together with cable ties you may find it necessary to remove them. Slide the control box towards the head end and remove it from the bed.

7.7.2 Installation

a) Connect the five actuator cables (11-11)(11-25)(11-26), two network cables (13-32)(13-33)★ and power supply extension cable (11-5) into the appropriate sockets on the control box.

b) Clip the cable retaining strip onto the front face of the control box (07-36), ensuring that all the cables are held securely in place.

c) Position the control box on the control box backplate (07-31). Attach with two panhead screws (07-33), two washers (07-34) and two Nyloc nuts (07-35).

d) Arrange all the cables tidily, refitting cable ties if removed. Install the control box cover (07-30) on the control box backplate, taking care not to crush any cables and secure the cover with the self-tapping screw (07-32).

7.8 Junction Box ★ – Replacement

☞ *Junction boxes are only fitted on beds with underbed lighting. Refer to Sheet 13.*

7.8.1 Removal

a) Insert a small flat bladed screwdriver into the slots on the front of the junction box (60-1) to release the clips. Pull off the retaining strip and keep it safe.

b) Unplug the cables from the junction box, having first made a note of which cable is connected to each socket.

c) Undo two screws (60-2) and two nuts (60-4) to release the junction box from the fixing bracket. Collect two washers (60-3).

7.8.2 Installation

a) Position the junction box (60-1) on the fixing bracket below the mattress platform. Attach it with two screws (60-2) and secure with two washers (60-3) and nuts (60-4).

b) Plug the cables into the corresponding sockets on the junction box. Make sure the plugs are fully pushed into the sockets, so that the yellow sealing rings are not visible.

c) Thread the cables through the holes in the retaining strip. Press the retaining strip into position on the junction box until it “clicks” into place.

7.9 Attendant Control Panel (ACP) – Replacement

7.9.1 Removal

a) If the bed is not equipped with underbed lighting, gain access to the control box (11-8) as given in Subsection 7.7.1.

b) Locate the ACP connector; on beds without underbed lighting it is connected to the control box socket IN 1, and on beds with underbed lighting it is connected to the junction box (13-31) below the mattress platform on the left-hand side of the bed.

c) Remove the cable retaining strip from the control box or junction box as appropriate and unplug the ACP cable connector.

d) Mark the position of the ACP cable where it enters the calf and thigh section cable tubes – refer to Sheet 11 or Sheet 13.

e) Remove the split cable bushes (11-14)(13-14) from either end of the thigh and calf section cable tubes - use a small flat bladed screwdriver to lever the bush part of the way out of the tube, then twist it out completely using lock grip pliers (Mole grips).

f) Tie a length of strong cord to the ACP connector plug. Pull the ACP cable out of the cable tubes and untie the cord, leaving it in place inside the tubes.

7.9.2 Installation

a) Using the old ACP cable as a guide, mark the positions of the calf and thigh section tubes on the new ACP cable.

b) Tie the free end of the cable to the cord and use it to pull the cable into the marked positions inside the cable tubes. Fit four new split cable bushes (11-14)(13-14) to secure the ACP cable in position.

c) Plug the ACP cable into the appropriate socket on the junction box (13-31) or control box (11-8). Thread the retaining strip over the cables and attach it to the junction box or control box.

d) On beds without underbed lighting, replace the control unit cover as given in Subsection 7.7.2.

7.10 Patient Handset – Replacement

7.10.1 Removal

a) If the bed is not equipped with underbed lighting, gain access to the control box (11-8) as given in Subsection 7.7.1.

b) Locate the patient handset connector; on beds without underbed lighting it is connected to the control box socket IN 2, and on beds with underbed lighting it is connected to the junction box (13-31) below the mattress platform on the right-hand side of the bed.

c) Remove the cable retaining strip from the control box or junction box as appropriate. Unplug the patient handset (11-12)(13-12) and remove it from the bed.

7.10.2 Installation

a) Plug the patient handset (11-12)(13-12) into socket IN 2 on the control box (11-8), or the handset socket on the junction box (13-31). Thread the cables through the cable retaining strip and clip it into place.

b) On beds without underbed lighting, replace the control box cover as given in Subsection 7.7.2.

7.11 Height Actuator – Replacement

WARNING

Before starting this procedure, ensure that the bed sub-frame assembly is securely supported at both ends with suitable stands or blocks.

If the height actuator that drives the foot end radius arm is to be replaced, it may be necessary to temporarily detach the body of the thigh actuator from the bed to gain access to the clevis pin (07-19). Refer to Section 7.14.

7.11.1 Removal

a) Refer to Subsection 7.1.1. Detach the cable clip from the height actuator (07-17) and unplug the actuator cable.

b) Prise off and discard two capped starlock washers (07-18). Drive out the clevis pin (07-19) to release the body of the actuator from the bed.

c) Drive out the second clevis pin (07-19) from the actuator ram and remove the height actuator from the bed.

7.11.2 Installation

a) Position the height actuator (07-17) on the bed with the actuator body towards the centre of the bed.

b) Fit a clevis pin (07-19) to attach the actuator body to the sub-frame fabrication (07-1) and secure with a new capped starlock washer (07-18).

c) Use the hoist to raise or lower the mattress platform to align the hole in the actuator ram with the fixing bracket on the radius arm (07-2). Fit clevis pin (07-19) to attach the actuator ram to the radius arm and secure with a new capped starlock washer (07-18).

d) Refer to Subsection 7.1.1. Connect the cable to the actuator - make sure the connector is fully seated in the socket. Refit the cable clip to the actuator body.

7.12 Backrest Actuator – Replacement

7.12.1 Removal

a) Refer to Subsection 7.1.1. Detach the cable clip from the backrest actuator (05-12) and unplug the actuator cable.

b) If the backrest is raised, use the hoist to support it. Prise off and discard two starlock washers (05-15). Drive out two clevis pins (05-14) to release the actuator from the bed.

7.12.2 Installation

a) Position the actuator (05-12) on the bed. Use a clevis pin (05-14) to attach the body of the actuator to the sub-frame assembly (05-2) and secure with a new starlock washer (05-15). The head of the clevis pin should lie towards the right hand side of the bed.

b) Use the hoist to lower or raise the backrest to align the fixing lug on the backrest fabrication (05-4) with the hole in the actuator ram.

c) Attach the actuator ram to the backrest with a clevis pin (05-14) and secure with a new starlock washer (05-15). The head of the clevis pin should lie towards the right hand side of the bed.

d) Refer to Subsection 7.1.1. Connect the actuator cable - make sure the connector is fully seated in the socket. Refit the cable clip to the actuator body.

7.13 Calf Actuator – Replacement

7.13.1 Removal

a) Raise the bed to maximum height to allow easy access to the underside of the mattress platform.

b) Refer to Subsection 7.1.1. Detach the cable clip from the calf actuator (05-13) and unplug the actuator cable.

c) Prise off and discard the starlock washer (05-15) from the ram end of the calf actuator. Drive out the clevis pin (05-14) to release the actuator ram from the calf radius arm fabrication (05-7).

d) Prise off and discard the starlock washer (05-15) from the body end of the calf actuator. Drive out the clevis pin (05-14) to release the actuator from the sub-frame assembly (05-2) and remove it from the bed.

7.13.2 Installation

a) Position the calf actuator (05-13) on the bed with the ram pointing towards the foot end. Attach the actuator body to the sub-frame assembly (05-2) with the clevis pin (05-14) and secure with a new starlock washer (05-15).

b) Using the hoist if necessary, raise the calf fabrication (05-6) to align the mounting lug with the hole in the calf actuator ram.

c) Attach the actuator ram to the calf radius arm (05-7) using the clevis pin (05-14) and secure with a new starlock washer (05-15).

d) Refer to Subsection 7.1.1. Connect the calf actuator cable - make sure the connector is fully seated in the socket. Refit the cable clip to the actuator body.

7.14 Thigh Actuator – Replacement

7.14.1 Removal

a) Raise the bed to maximum height to allow easy access to the underside of the mattress platform.

b) Refer to Subsection 7.1.1. Detach the cable clip from the thigh actuator (05-13) and unplug the actuator cable.

c) Prise off and discard the starlock washer (05-15) from the ram end of the thigh actuator. Drive out the clevis pin (05-14) to release the actuator ram from the thigh fabrication (05-5).

d) Prise off and discard the starlock washer (05-15) from the body end of the thigh actuator. Drive out the clevis pin (05-14) to release the actuator from the sub-frame assembly (05-2) and remove it from the bed.

7.14.2 Installation

a) Position the thigh actuator (05-13) on the bed with the ram pointing towards the foot end. Attach the actuator body to the sub-frame assembly (05-2) with the clevis pin (05-14) and secure with a new starlock washer (05-15).

b) Temporarily detach the calf actuator from the calf fabrication as given in paragraph 7.13.1 c). This will allow the calf and thigh sections to be moved manually.

c) Use the hoist to position the thigh fabrication (05-5) to align the mounting lug with the hole in the thigh actuator ram. Attach the actuator ram to the thigh fabrication using the clevis pin (05-14) and secure with a new starlock washer (05-15).

d) Refer to Subsection 7.1.1 Connect the calf actuator cable - make sure the connector is fully seated in the socket. Refit the cable clip to the actuator body.

e) Attach the calf actuator to the calf fabrication as given in paragraph 7.13.2 c).

7.15 Power Supply Extension Cable – Replacement

7.15.1 Removal

a) Mark the positions of the split bushes (11-14) on the power supply extension cable (11-5). Remove the split bush from either end of the sub-frame cable tube (11-22); use a small flat bladed screwdriver to lever the bush part of the way out of the tube, then twist it out completely using lock grip pliers (Mole grips).

b) Gain access to the control box (07-36) as given in Subsection 7.7.1, but do not disconnect all the cables. Unplug the power supply extension cable.

c) Tie a 2m length of strong cord to the free end of the extension cable. Pull the extension cable through the sub-frame cable tube. Untie the cord but leave it in place inside the cable tube.

d) Undo the hex head bolt (11-18) securing the cable clamp (11-17) to the base bracket (11-23). Collect the serrated washer (11-19) and Nyloc nut (11-20).

e) Prise out the locking ring (11-27). Unplug the power supply extension cable and pull the long earthing strap (11-23) out of the coiled part of the cable.

7.15.2 Installation

a) Thread the long earthing strap (11-23) through the coiled part of the power supply extension cable (11-5). Using the old cable as a guide, mark the position of the cable clamp (11-17) and split bushes (11-14) on the new extension cable. Connect the lower end of the extension cable and refit the locking ring (11-27).

b) Position the cable clamp (11-17) against the strain relief moulding on the extension cable. Locate the cable clamp on the right hand side of the base bracket. Make sure the lug on the cable clamp fits through the smaller of the two holes.

c) Fit the hex head bolt (11-18) through the cable clamp and base bracket. From beneath, fit the serrated washer (11-19) and earth bonding straps (11-13)(11-28) and secure with Nyloc nut (11-20). Tighten firmly.

The serrated washer must be fitted between the earth bonding strap and base bracket to ensure electrical continuity.

d) Tie the cord inside the sub-frame cable tube (11-22) to the free end of the power supply extension cable. Use the cord to pull the extension cable through the cable tube.

e) Line up the marked positions on the extension cable with the ends of the cable tube. Fit a new split bush (11-14) at either end of the sub-frame cable tube to secure the extension cable.

f) Reconnect the power supply extension cable to the control box (07-36). Fit the retaining strip and install the control box on the bed as given in Subsection 7.7.2.

7.16 CPR Cable – Replacement

7.16.1 Removal

a) Undo two self-tapping screws (07-27) and remove the CPR cable cover (07-26).

b) Remove two socket head screws (07-7) and collect two Nyloc nuts (07-8) to release the CPR cable (07-28) from the CPR release handles (07-9)(07-10) on either side of the bed. Tie one metre (approx.) lengths of strong cord to the rings at the free ends of the CPR cable.

c) Slacken the two nuts attaching the CPR cable to the fixing bracket on the sub-frame fabrication (07-1) and pull the cable out of the lug. Remove the CPR cable from the roller (07-12) and pull the free ends out of the sub-frame fabrication. Untie the cords from the CPR cable but leave them in place inside the cross-member.

d) Refer to Figure 7-3. Slide the cover (A) off the CPR cable housing on the side of the backrest actuator (05-12). Lift the ball end of the cable (B) out of the housing and remove the CPR cable from the bed.

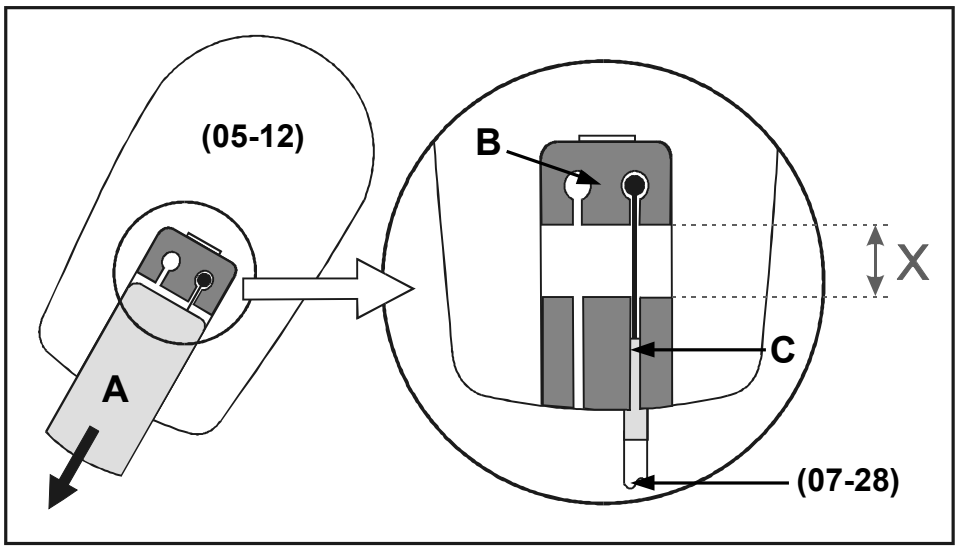


Figure 7-3 CPR cable fixing - backrest actuator

7.16.2 Installation & Adjustment

a) Refer to Figure 7-3. Position the ball end of the CPR cable (07-28) in the circular recess of the cam lever (B). Locate the inner cable in the groove (C) with the outer cable held in place as shown.

b) Route the cable below the mattress platform assembly, and thread the free ends around the CPR roller (07-12) as shown in Figure 7-4.

c) Attach the rings on the free ends of the CPR cable to the two cords inside the cross-member. Use the cords to pull the cables through the cross-member on either side. Attach the two rings to the CPR handles (07-9)(07-10) with two socket head screws (07-7) and secure with two Nyloc nuts (07-8). Remove the cords.

d) Refer to Figure 7-4. Secure the CPR cable to the sub-frame fabrication (07-1) using one captive nut (D) either side of the fixing bracket (E).

Continued on next page

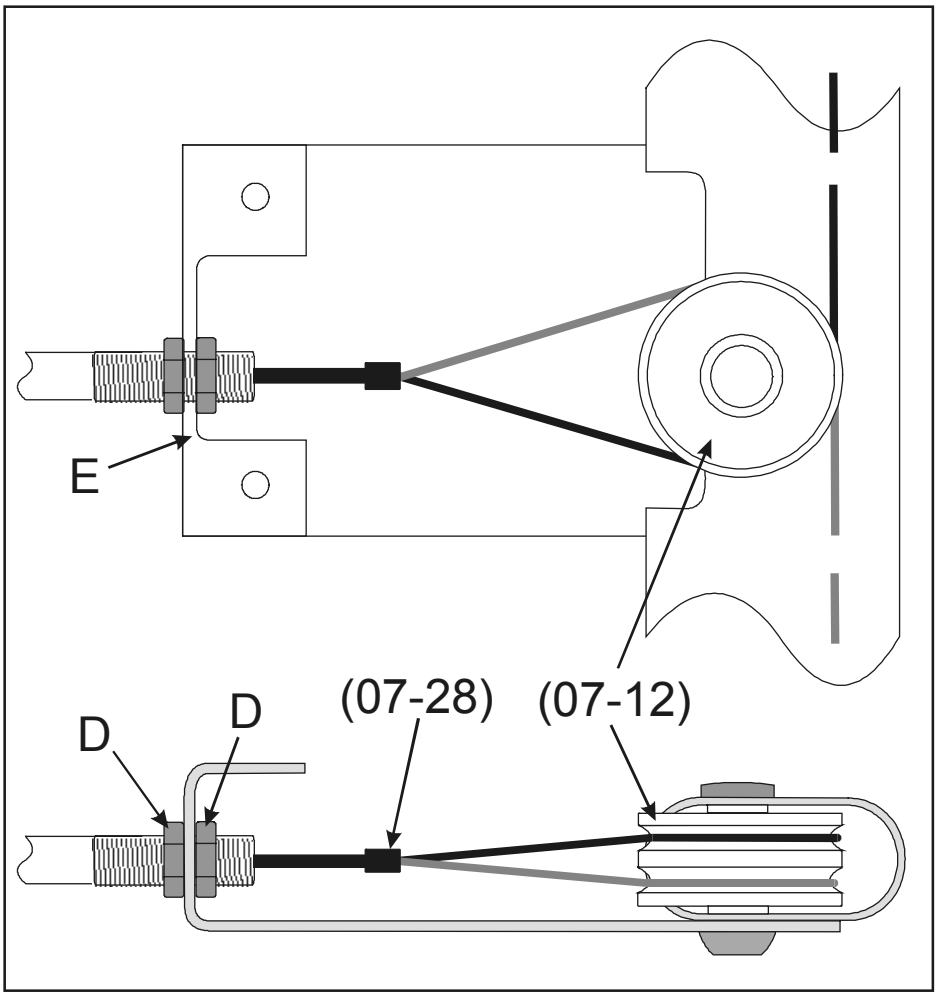


Figure 7-4 CPR cable routing

e) Adjust the captive nuts (D) so that the distance "X" in Figure 7-3 is between 11.0 and 11.5mm; this should be measured using vernier or digital callipers. Refit the sliding cover (A) on the backrest actuator.

WARNING

If the CPR cable is not adjusted correctly, it may result in unexpected operation of the high/low mechanism.

f) Refit the CPR cable cover (07-26) and secure with two self-tapping screws (07-27).

7.17 Backrest Damper – Replacement

7.17.1 Removal

a) Raise the backrest to maximum height. If the backrest actuator has been removed, use the hoist to support the backrest in position.

b) Prise off and discard two starlock washers (05-15). Remove the backrest damper (05-32) from the bed.

7.17.2 Installation

a) Fit the new backrest damper (05-32), with the ram end uppermost, over the spigots on the backrest (05-4) and sub-frame assembly (05-2).

b) Secure the damper with two new starlock washers (05-15).

Refer to Appendix B for important information on the safe disposal of unserviceable dampers (gas springs).

7.18 Dismantling the Bed

This section gives procedures for dismantling the main structure of the bed. It must be read in conjunction with the preceding sections, which describe the removal of specific components and sub-assemblies.

Dismantling of the bed is not a routine procedure and should only be carried out to the extent necessary.

The information given is for guidance only, since procedures will be varied according to the purpose for which they are undertaken.

Minor procedures that may be considered self-evident have not been included.

7.18.1 Mattress Platform Extension – Removal

a) Remove three button head screws (15-6) and detach the bedstripper moulding (15-1).

b) Remove the foot end panel from the bed. Refer to Section 2.4. Pull out the extension to the extended position but do not rotate the catches to lock the extension in position.

c) Prise off and discard two capped starlock washers (15-19). Drive out two clevis pins (15-20).

d) Pull the extension fabrication out of the calf section fabrication (15-18) and remove it from the bed.

e) If required, drive out two bedstripper stop pins (15-3) and withdraw the bedstripper fabrication (15-2) from the bed extension fabrication (15-17).

7.18.2 Folding Safety Sides – Removal

a) Remove two plain starlock washers (05-36) from below the safety side mounting tubes on each side of the bed

b) Drive out the four clevis pins (05-35) and pull the safety side assemblies (05-37) off the mattress platform, ensuring that the socket liners (05-34) remain in place.

7.18.3 Backrest – Removal

a) Remove the backrest actuator (05-12) and damper (05-32) as given in Subsections 7.12.1 and 7.17.1.

b) Prise off and discard two backrest hinge infills (05-25)(05-26) and two plain hinge infills (05-24). Remove two button head screws (05-20) and collect two washers (05-19).

c) Use the hoist to support the backrest. Slide the backrest fabrication (05-4) towards the right side of the bed to detach it from the sub-frame assembly (05-2). Collect two hinge bushes (05-18) and remove the backrest from the bed.

7.18.4 Calf Section – Removal

a) Prise off and discard four plain hinge infills (05-24) from the hinges between the calf and thigh sections. Remove two button head screws (05-20) and collect two washers (05-19).

b) Support the calf section with the hoist. Lift the calf fabrication clear of the skid mouldings (05-9) on the calf radius arm (05-7).

c) Slide the calf section towards the left side of the bed to detach it from the thigh fabrication (05-5). Collect two hinge bushes (05-18) and remove the calf section from the bed.

7.18.5 Calf Radius Arm – Removal

a) Remove the calf actuator (05-13) as given in Subsection 7.13.1.

b) Prise off and discard the retaining clip (05-11).

WARNING

The retaining clip may fracture and fly off at high speed. Wear suitable face protection and cover the work area with a thick cloth to prevent injury.

c) Slide the calf radius arm towards the right side of the bed and remove it. Collect two bearings (05-8).

7.18.6 Thigh Section – Removal

a) Remove the thigh actuator (05-13) as given in Subsection 7.14.1.

b) Prise off and discard two thigh section hinge infills (05-27)(05-28) and two plain hinge infills (05-24). Remove two button head screws (05-20) and collect two washers (05-19).

c) Slide the thigh fabrication towards the left side of the bed to detach it from the sub-frame assembly (05-2). Collect two hinge bushes (05-18).

7.18.7 Sub-Frame Assembly - Removal

WARNING

Support the sub-frame assembly and radius arms at all times.

a) Remove the power supply extension cable as given in Subsection 7.15.1. Remove both height actuators (07-17) from the bed, as given in Subsection 7.11.1.

b) Remove screw (07-27) and disconnect the earth braid (07-29) from the head end radius arm (07-2). Prise off and discard the two retaining clips (07-16).

WARNING

The retaining clips may fracture and fly off at high speed. Wear suitable face protection and cover the work area with a thick cloth to prevent injury.

c) With the assistance of a second person, slide the sub-frame assembly (07-1) towards the right side of the bed to release it from the radius arm fabrications (07-2) and collect four bearings (07-14). Do not allow the radius arms to fall.

7.18.8 Radius Arms & Stabiliser Arms – Removal

a) Remove two button head screws (07-20) to release the stabiliser arms (01-8) from the radius arm fabrications (07-2). Collect two pivot bushes (07-21).

b) Slide the radius arm fabrications towards the centre of the bed along the channels on the base fabrication (01-1). Remove the radius arms.

c) To remove the stabiliser arms from the base fabrication: remove two socket button head screws (01-9) and collect two pivot bushes (01-10).

7.19 Assembling the Bed

7.19.1 Radius Arms & Stabiliser Arms – Installation

a) If the stabiliser arms (01-8) were removed: fit the pivot bush (01-10) to the lower fixing hole on the stabiliser arm and secure it to the base fabrication (01-1) with socket head screw (01-9). Make sure the stabiliser arms are correctly orientated.

b) Install the slide mouldings (07-25) on the lower cross-members of the radius arms (07-2). Install the radius arms in the channels on the base fabrication – check for correct orientation.

c) Fit pivot bushes (07-21) to the upper stabiliser arm fixing holes. Attach the stabiliser arms to the side of the head end radius arm with two socket head screws (07-20).

7.19.2 Sub-Frame Assembly – Installation

a) Install four bearings (07-14) in the upper cross-members of the two radius arms (07-2).

b) Use suitable blocks or stands to support the radius arms at the same height. With the assistance of a second person, install the sub-frame fabrication (07-1) on the radius arms. Support the sub-frame fabrication at both ends.

c) Slide the sub-frame fabrication to the right side of the bed. Install retaining clips (07-16) around the pivots to lock the radius arms to the sub-frame fabrication.

To make the retaining clips (07-16) easier to install, soak them in hot water for a few minutes beforehand.

d) Reconnect the earth braid (07-29) to the head end radius arm (07-2) using screw (07-27). Refit the two height actuators (07-17) as given in Subsection 7.11.2. Refit the power supply extension cable as given in Subsection 7.15.2.

7.19.3 Thigh Section – Installation

a) Fit two hinge bushes (05-18) in the head end pivots of the thigh section fabrication (05-5). Slide the thigh section from left to right to install it on the sub-frame assembly (05-2).

b) Secure the thigh section to the sub-frame with two washers (05-19) and two socket head screws (05-20).

c) Fit two new thigh hinge infills (05-27)(05-28), making sure they are installed on the correct side of the bed. Fit a plain hinge infill (05-24) on the inboard face of each hinge. Use the notches on the infills to align them and clean off any old adhesive before fitting.

d) Install the thigh actuator (05-13) as given in Subsection 7.14.2.

7.19.4 Calf Radius Arm – Installation

a) Fit two small bearings (05-8) in the calf radius arm (05-7).

b) Install the calf radius arm on the sub-frame assembly (05-2). Slide it towards the right side of the bed and install the small retaining clip (05-11) to hold it in position.

To make the retaining clip (05-11) easier to install, soak it in hot water for a few minutes beforehand.

c) Install the calf actuator (05-13) as given in Subsection 7.13.2.

7.19.5 Calf Section – Installation

a) Fit two hinge bushes (05-18) in the calf section (05-6) hinges.

b) Install the calf section on the thigh section (05-5). Ensure that the skid mouldings (05-9) on the calf radius arm locate in the channels on the underside of the calf section. Secure with two socket head screws (05-20) and two washers (05-19).

e) Fit four new plain hinge infills (05-24) on the hinges between the thigh and calf sections. Use the notches on the infills to align them and clean off any old adhesive before fitting.

7.19.6 Backrest – Installation

a) Fit two hinge bushes (05-18) in the pivot holes at the base of the backrest fabrication (05-4).

b) Install the backrest on the head end of the sub-frame assembly (05-2). Secure in position with two washers (05-19) and socket head screws (05-20).

c) Fit two new backrest hinge infills (05-25)(05-26), making sure they are fitted on the correct side of the bed. Fit a plain hinge infill (05-24) on the inboard face of each hinge. Use the notches on the infills to align them and clean off any old adhesive before fitting.

d) Install the backrest actuator and backrest damper as given in Subsections 7.12.2 and 7.17.2.

7.19.7 Folding Safety Sides – Installation

a) Slide the safety side mounting spigots into the sockets below the mattress platform – make sure the socket liners (05-34) are correctly installed.

The safety sides are handed and are fitted with the release knob and catch mechanism towards the foot of the bed.

b) Fit two clevis pins (05-35) to attach the safety side assembly to the bed. Secure the clevis pins from below with plain starlock washers (05-36).

7.19.8 Mattress Platform Extension – Installation

a) If previously removed, slide the bedstripper fabrication (15-2) through the bedstripper bushes (15-8) in the bed extension fabrication (15-17).

b) Drive in two bedstripper stop pins (15-3) - the stop pins are fitted tapered end first, from inside to outside of the bed.

c) Slide the extension unit into the calf section fabrication (15-18) as far as it will go. Fit two clevis pins (15-20) and secure with two new capped starlock washers (15-19) on the outside of the calf section.

d) Attach the bedstripper moulding (15-1) to the bedstripper fabrication using three socket button head screws (15-6).

7.20 Restoration of Paintwork

Damage to the paint finish on the frame or other components can be repaired by brush application of cellulose-based paint obtainable from specialist paint suppliers or local distributors.

Standard finish colours are as follows:

5000 Series - silver (Ikea No. 1)

5001 Series - mint green (NCS 0505-B50G)

7.20.1 Procedure

a) Clean and degrease the damaged area by wiping with a lint free cloth moistened with a suitable volatile solvent, e.g. methylated spirits.

b) Make sure there are no loose chips of paint and use fine silicon carbide abrasive paper to abrade the area where paint is to be applied and blend to a smooth surface. Clean and degrease the area again.

c) Use a soft bristle brush to apply primer paint to the damaged area. Allow the primer to dry and apply the colour finish paint. Use both in accordance with the manufacturer's instructions.

WARNING

Always use painting materials as directed by the manufacturer and obey the safety instructions.

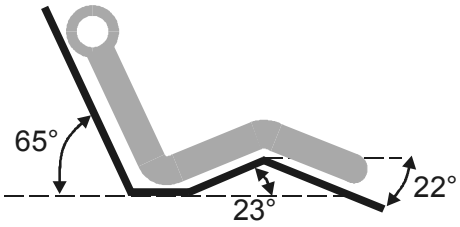
8 TECHNICAL DATA

Dimensions (Model 5000B/C)

Overall length	228cm (90 ins.)
Extended	241cm (95 ins.)
In-bed length	202cm (79½ ins.)
Extended	215cm (84¾ ins.)
Overall width	99cm (39 ins.)
Height of mattress platform	
125mm castors	38 to 77cm (15 to 30¼ ins.) Extra low height 30cm (11¾ ins.)
150mm castors	40 to 79cm (15¾ to 31 ins.) Extra low height 32cm (12½ ins.)

Mattress size 202 x 88 x 12.5cm
(79½ x 34¾ x 5 ins.)

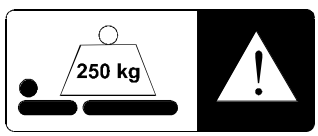
Patient Positioning

Head down tilt (Trendelenburg)	0 to 12°
Foot down tilt (reverse Trendelenburg)	0 to 12°
Mattress platform angles (max.)	

Product Weights (approx.)

Model 5000B/C	140kg (308 lbs.)

Safe Working Load 250kg
(550 lbs.)



Electrical Data

Power input	*UK/Europe/Australia*	3A max. at 230V a.c. 50Hz
	USA/Canada	6A max. at 120V a.c. 60Hz
Duty rating		Intermittent 10% (2min. / 20 min.)
Safety standards		Complies with EN 60601-1/IEC 60601-1 EN 60601-2-38 / IEC 60601-2-38
Electric shock protection		Class I Type B
EMC		Complies with EN 60601-1-2
Equipotential terminal		Complies with IEC 60601-1
Liquid ingress protection		IP54
Backup battery		2 x 12V 1.2Ah, series connected, sealed, rechargeable lead/acid gel

9 TRANSPORTATION AND STORAGE

Caution

Handle with care. Do not drop. Avoid shock or violent impact.

This equipment should be stored in a clean, dry and well-ventilated area.

The following limits apply during transport and for a storage period of up to 15 weeks:

Ambient temperature	-25°C to 70°C (-13°F to 158°F)
Relative humidity	10% to 75%
Air pressure	50kPa to 106kPa

The following limits apply to operating conditions or longer periods of storage:

Ambient temperature	10°C to 40°C (50°F to 104°F)
Relative humidity	30% to 75%
Air pressure	70kPa to 106kPa

APPENDIX A - ASSEMBLY SPARES MANUAL

A.1 General

The Assembly Spares Manual is for the identification and requisition of replaceable parts. It contains assembly drawings of the equipment and sub-assemblies. Each drawing sheet is accompanied by its related parts list.

A.2 How to Use the Assembly Spares Manual

Refer to the servicing instructions given in Chapter 7 to identify the applicable drawing sheet number. Find the part on the drawing and note the item number, which is given in a balloon, e.g. ①. Refer to the related parts list for information regarding the part.

Sometimes a number of identical parts may appear in different locations but only one will be identified with a balloon. The number in the "Qty" column of the parts list indicates the total number of times that the part appears in the drawing.

When a part has optional variations, the last column(s) of the parts list refers to a separate drawing sheet defining the choices.

Huntleigh HEALTHCARE NESBIT EVANS Products Division

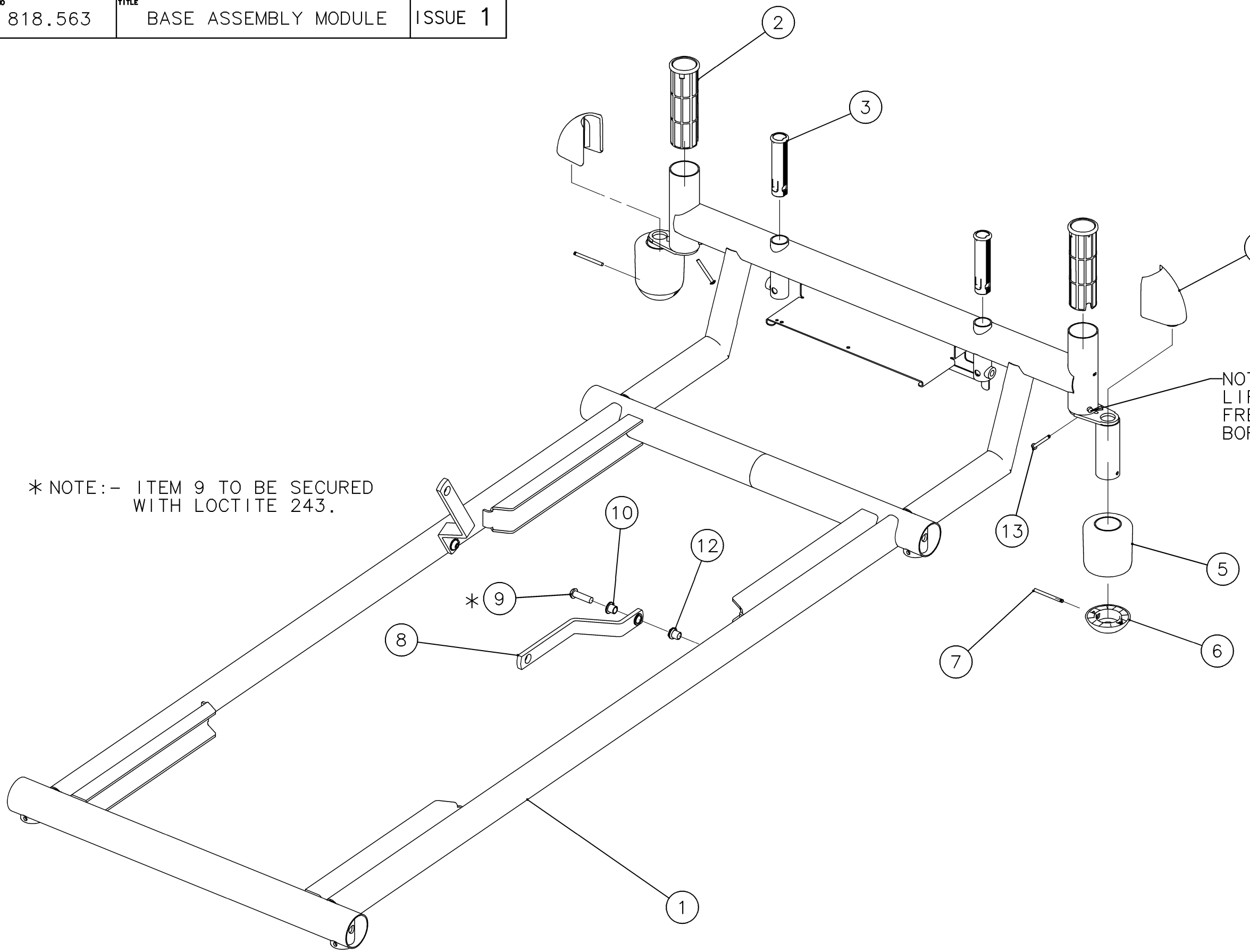
Service Manual Amendments Sheet

Document Ref. 746-446

Product – Enterprise™ 5000 Series

Build Level	Mod Note	Date	Serial No.	Sheet No.	Drawing No.	Issue
02	4591	08.09.06	846418	9	818.465	2
03	4592	15.09.06	846418	11	818.598	2
				13	818.630	2
04	4617	25.10.06	855195	55	818.622	2
05	4629	01.11.06	855195	9	818.465	3
06	4625	16.11.06	860402	5	818.565	2
				13	818.630	3
				55	818.622	3
07	4639	23.11.06	862100	9	818.465	4
08	4636	28.11.06	863130	11	818.598	3
				13	818.630	4
09	4646	07.12.06	865400	5	818.565	3
				12	818.222	4
10	4663	22.01.07	872791	11	818.630	5
				13	818.598	4

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	SHEET No 01
DRWG NO 818.563	TITLE BASE ASSEMBLY MODULE	ISSUE 1



NOTE:- THE PINS WELDED IN THE LIFTING POLE SOCKETS, MUST BE FREE OF PAINT INSIDE THE TUBE BORES.

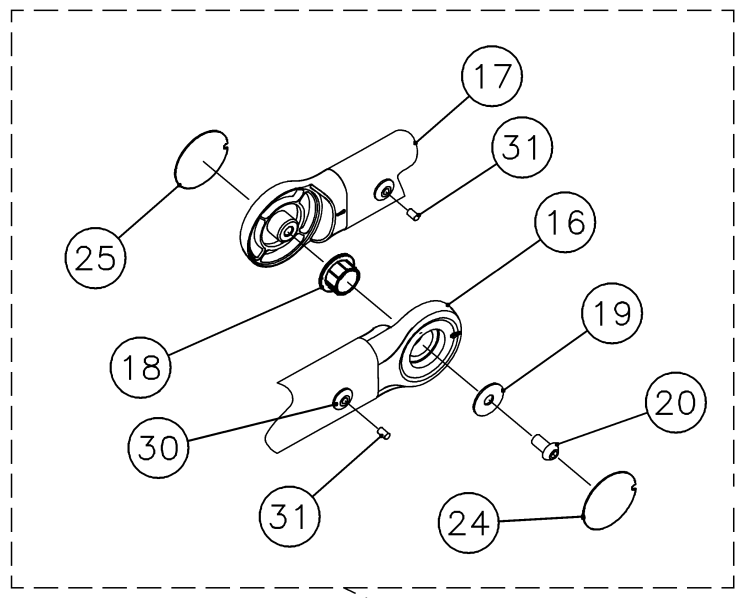
*NOTE:- ITEM 9 TO BE SECURED WITH LOCTITE 243.

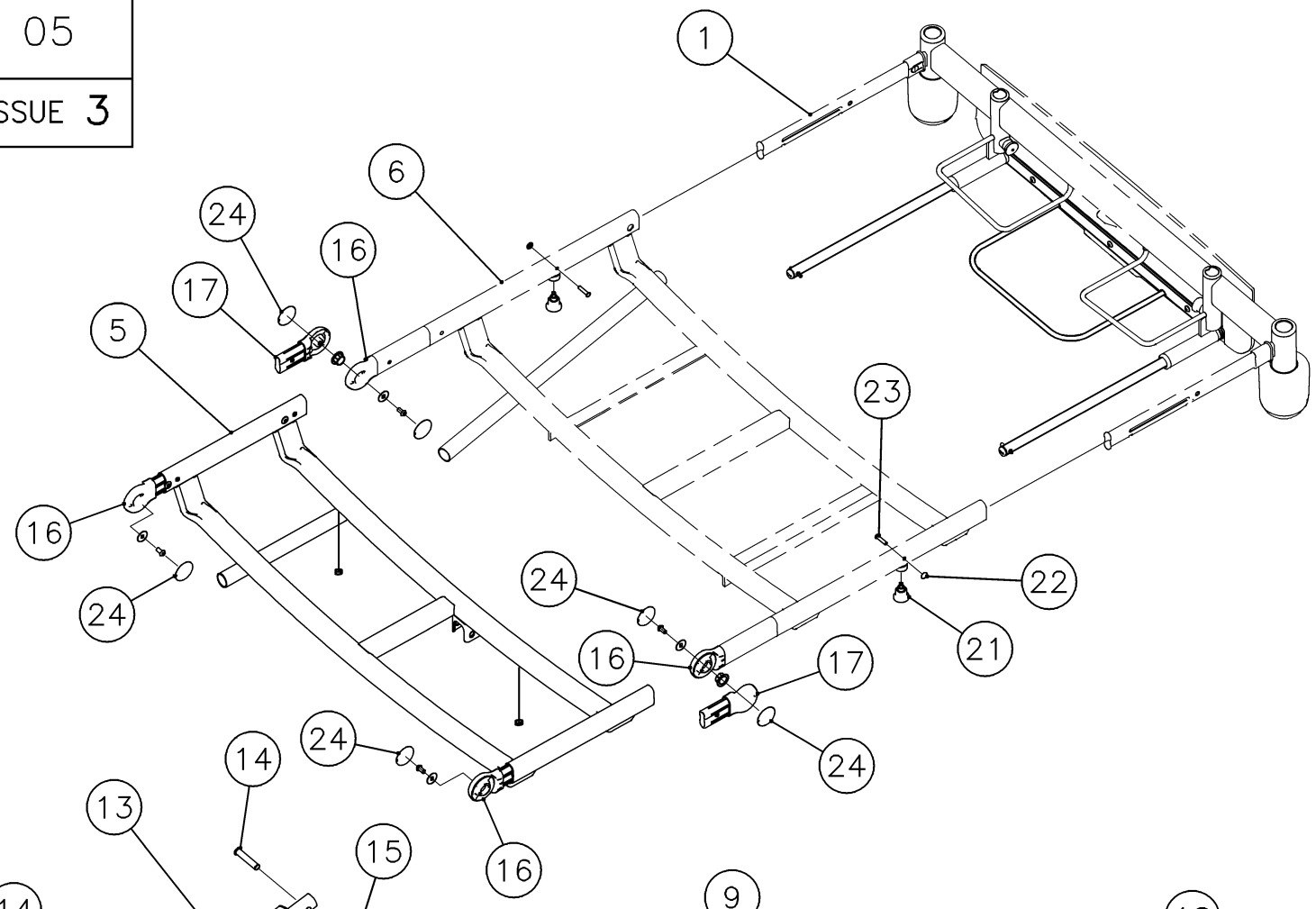
DRAWN	KJ 6.7.06	C.KED	DEJ 6.7.06

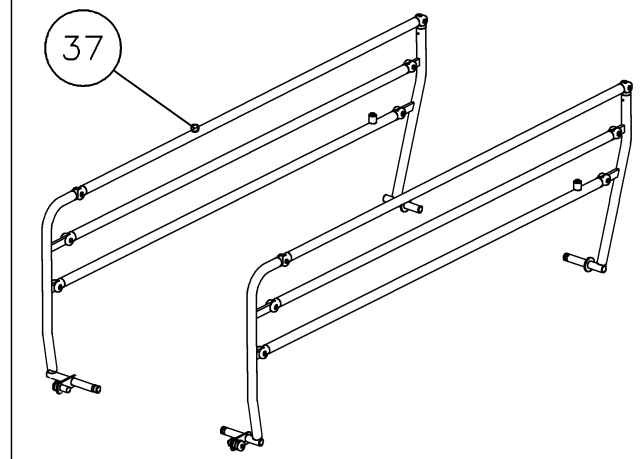
Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	1 OF 1	SHEET No 01
DRWG NO 818.563 etc	TITLE BASE ASSY MODULE	ISSUE 1	

ITEM	PART No	QTY	DESCRIPTION
1	818.441	1	Base Fab'n
2	818.125	2	Lifting Pole Socket Liner
3	818.126	2	Panel Socket Liner
4	818.111	2	Roller Buffer Bracket Cover
5	818.109	2	Roller Buffer Complete
6	818.110	2	Roller Buffer Retainer
7	805.16	2	Retaining Pin
8	818.453	2	Stabiliser Arm Sub-Assy
9	S3612	2	Socket Button Hd Screw M10x35
10	818.35	2	Stabiliser Pivot Bush
11			
12	S6835	2	Avdel M10
13	S5619	2	No.10 x 1-3/4" Pozi Round Hd Woodscrew
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

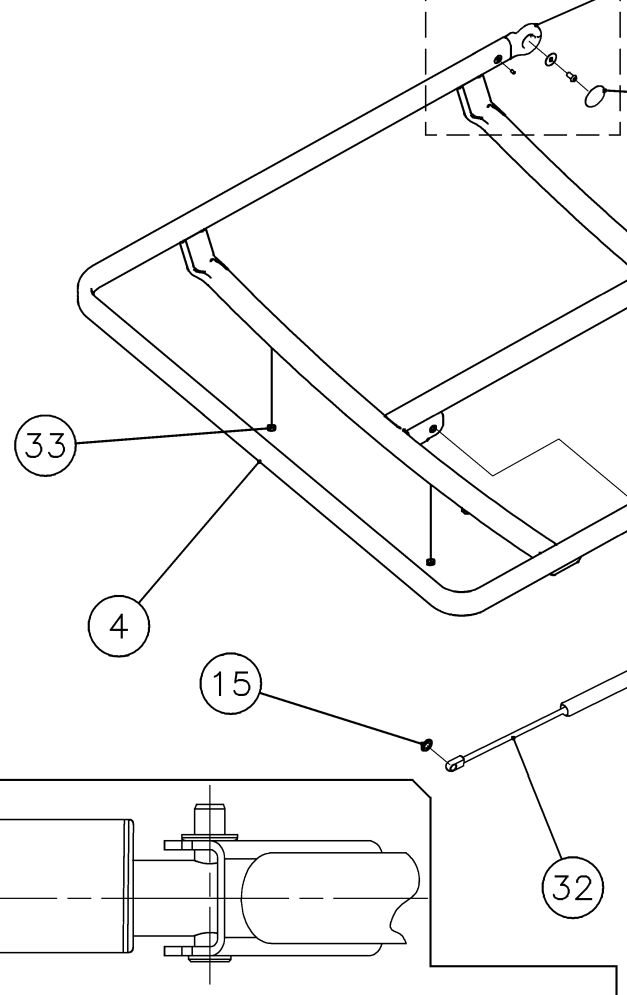
Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000B	SHEET No 05
DRWG NO 818.565 etc	TITLE DECK ASSY MODULE	ISSUE 3

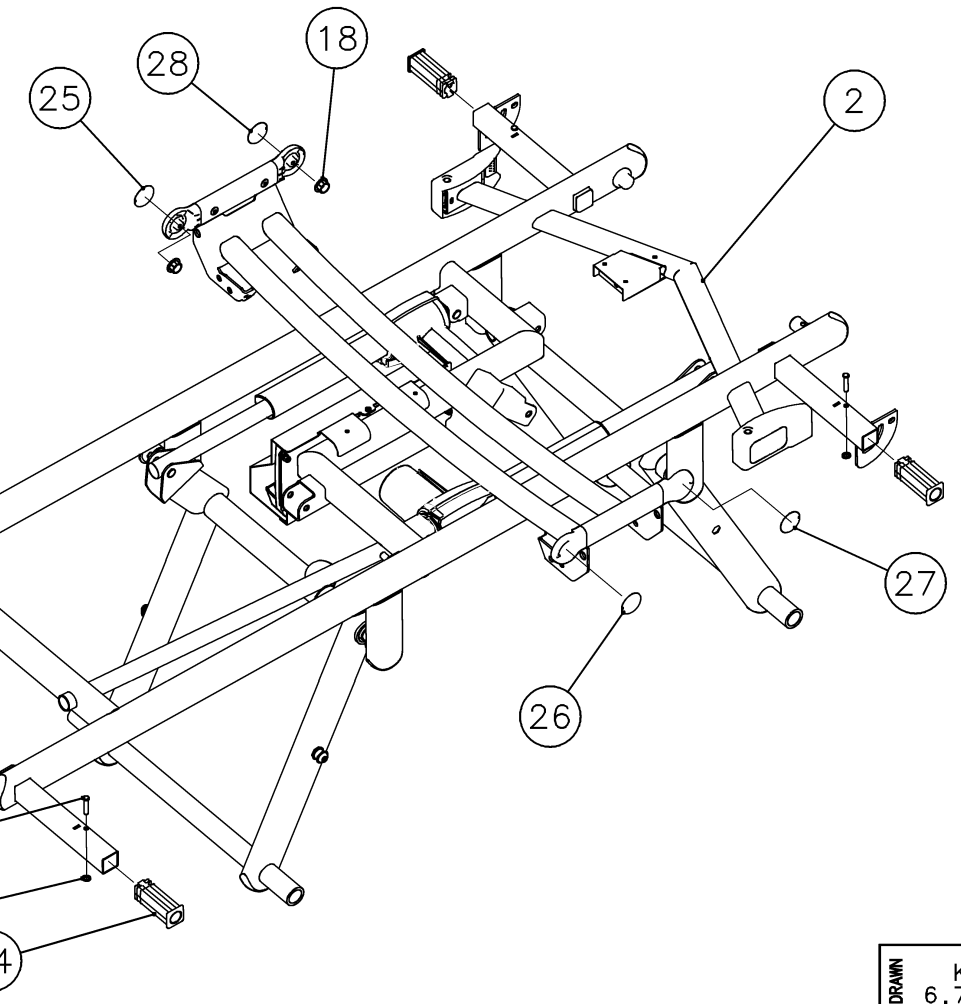






SEE ASSEMBLY DRAWING
818.465 FOR DETAILS





NOTE:- HEAD OF CLEVIS PINS TO BE PULLED FIRMLY AGAINST BRACKETS IN ALL SITUATIONS.

DRAWN	KJ 6.7.06	C.KED	SJJ 6.7.06

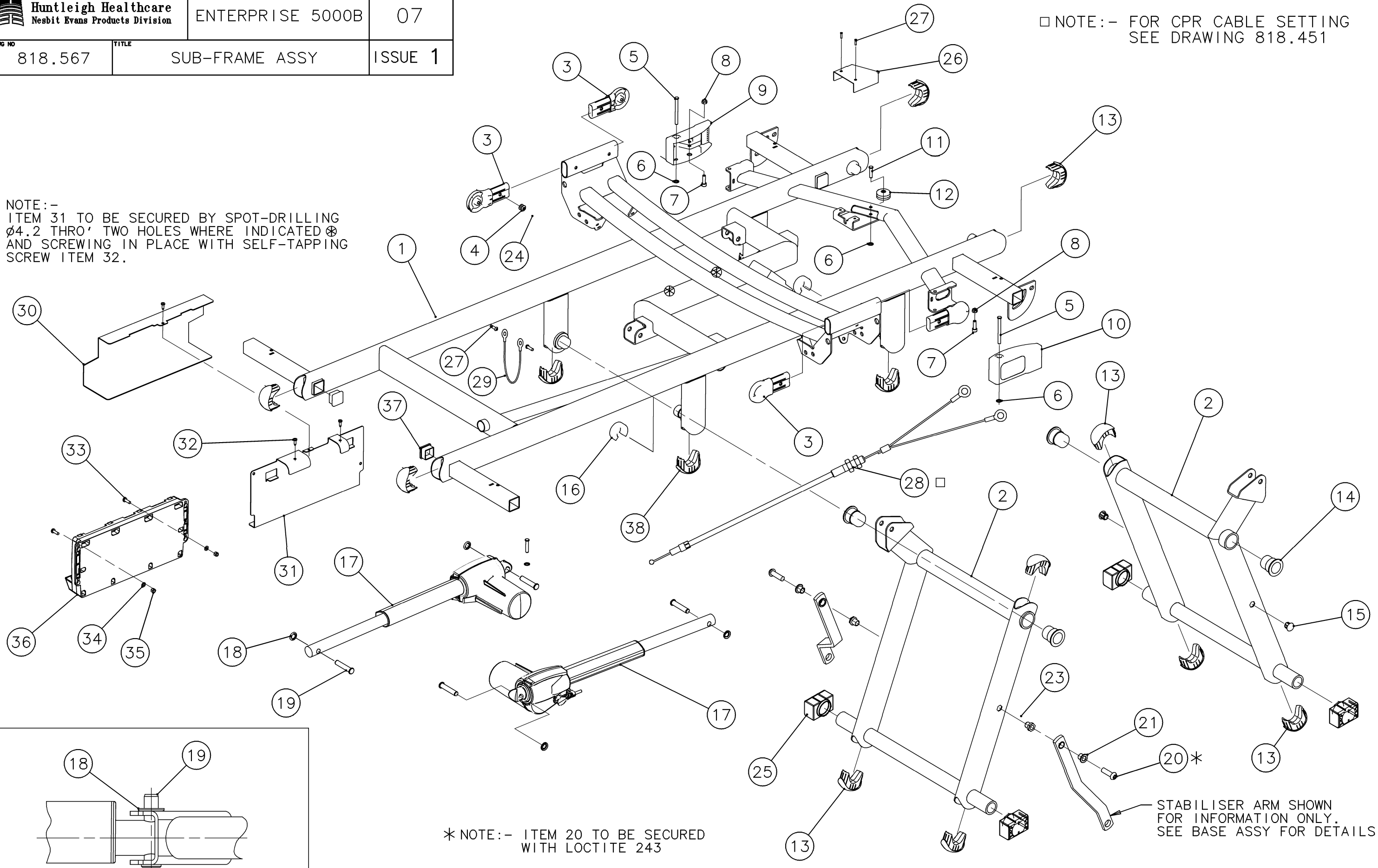
Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000B	1 OF 1	SHEET No 05
DRWG NO 818.565	TITLE DECK ASSY MODULE	ISSUE 3	

ITEM	PART No	QTY	DESCRIPTION
1	-------	1	Bed Extension Assy (See Bed Extension Module)
2	818.567	1	Sub Frame Assy
3			
4	------	1	Backrest Fab'n (See Deck Sheet Module)
5	818.536	1	Thigh Fab'n
6	------	1	Calf Fab'n (See Bed Extension Module)
7	818.112	1	Radius Arm Calf Fab'n
8	712.03	2	Bearing - Small
9	818.590	2	Skid Moulding - Radius Arm Calf Fab'n
10			
11	712.05	1	Retaining Clip - Small
12	S9090	1	Backrest Actuator LA27
13	S9091	2	Calf/Thigh Actuator LA27
14	S3840	6	Clevis Pin ø10 x 50 Lg
15	S4835	8	Starlock ø10 Stainless Steel
16	818.86	6	Hinge Outer
17	818.85	2	Hinge Inner
18	818.69	6	Hinge Bush
19	S1827	6	Washer M6xø20 x 1Thk
20	S3650	6	Socket Button Head Screw M6x10 Zn Plt. - Tuflok
21	-----	-	Indexing Plunger Assy(See Bed Extension Module)
22	-----	-	Capped Starlock ø5 (See Bed Extension Module)
23	-----	-	Clevis Pin ø5 x 23Lg (See Bed Extension Module)
24	818.105	8	Hinge Infill - Plain
25	818.103	1	Hinge Infill - Backrest - LH
26	818.104	1	Hinge Infill - Backrest - RH
27	818.195	1	Hinge Infill - Thigh - LH
28	818.196	1	Hinge Infill - Thigh - RH
29			
30	S4529	8	Pop-Rivet ø6.4 x 15Lg
31	S6526	12	Nylon Plug for Pop-Rivet
32	788.984	1	Backrest Damper
33	S5107	4	Bumper
34	820.61	4	S-Side Socket Liner
35	S3845	4	Clevis Pin ø6 x 35 Lg Zn Plt
36	S4816	4	Starlock ø6 Plain Zn Plt
37	818.465	1	Folding Safety-Sides (Pair)
38	S6581	1	Nylon Spacer (Moss Ref: 1001560000VR)
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000B	SHEET No 07
DRWG NO 818.567	TITLE SUB-FRAME ASSY	ISSUE 1

□ NOTE:- FOR CPR CABLE SETTING
SEE DRAWING 818.451

NOTE:-
ITEM 31 TO BE SECURED BY SPOT-DRILLING
ø4.2 THRO' TWO HOLES WHERE INDICATED ⊛
AND SCREWING IN PLACE WITH SELF-TAPPING
SCREW ITEM 32.



NOTE:- HEAD OF CLEVIS PINS TO BE PULLED FIRMLY AGAINST BRACKETS IN ALL SITUATIONS.

∗ NOTE:- ITEM 20 TO BE SECURED WITH LOCTITE 243

STABILISER ARM SHOWN FOR INFORMATION ONLY. SEE BASE ASSY FOR DETAILS.

DRAWN	KJ 7.7.06	C.KED	SJJ 7.7.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000B	1 OF 1	SHEET No 07
DRWG NO 818.567	TITLE DECK SUB-FRAME ASSY	ISSUE 1	

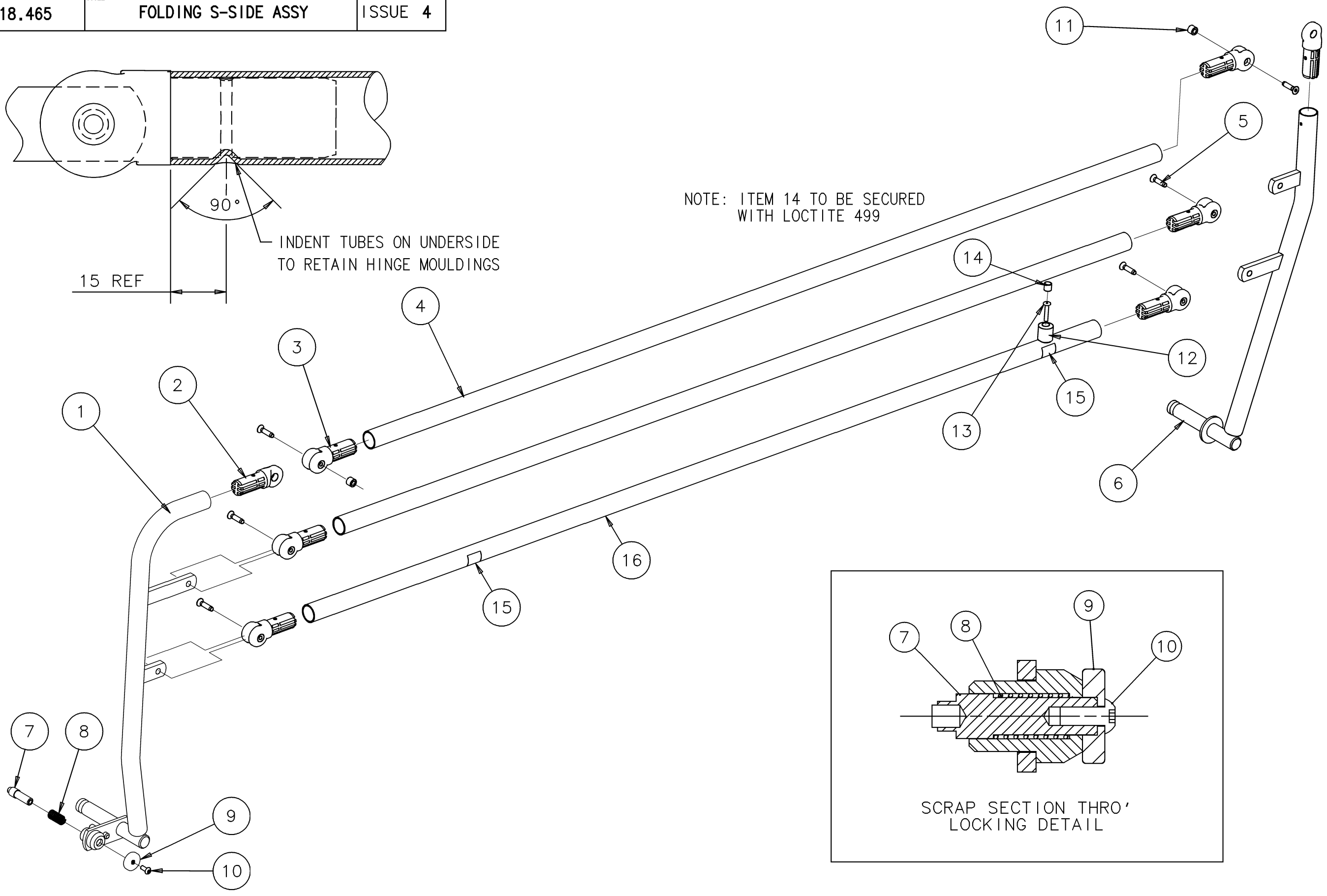
ITEM	PART No	QTY	DESCRIPTION
1	818.470	1	Sub-Frame Fab'n
2	818.26	2	Radius Arm Fab'n
3	818.85	4	Hinge Inner
4	S4529	4	Pop-Rivet ø6.4 x 15Lg
5	S3843	2	Clevis Pin ø6 x 65Lg
6	S4816	3	Starlock ø6
7	S1714	2	Socket Cap Head Screw M6x20Lg
8	S1409	2	Nyloc Nut M6 Thin
9	818.161	1	CPR Lever - LH
10	818.162	1	CPR Lever - RH
11	S3842	1	Clevis Pin ø6 x 25Lg
12	818.172	1	CPR Roller
13	818.91	10	Tube End Cap
14	712.02	4	Bearing
15	818.182	2	Radius Arm Blanking Cap
16	712.04	2	Retaining Clip
17	S9093	2	Height Actuator LA27
18	S4835	4	Starlock ø10 Stainless Steel
19	S3840	4	Clevis Pin ø10 x 50 Lg
20	S3612	2	Socket Button Hd Screw M10x35Lg
21	818.35	2	Stabiliser Pivot Bush
22			
23	S6835	2	Avdel M10
24	S6526	4	Nylon Plug for Pop-Rivet
25	818.33	4	Slide Moulding
26	818.577	1	CPR Cable Cover
27	S1619	4	Self Tapping Screw
28	818.289	1	CPR Cable
29	788.949	1	Earth Braid
30	818.391	1	Control Box Cover
31	818.389	1	Control Box Backplate
32	S1619	3	No.10 x 1/2" Self-Tapping Screw
33	S3456	2	M5 x 16 Pozi Pan Head Screw
34	S1812	2	M5 x ø10 Flat Washer
35	S1410	2	M5 Nyloc Nut
36	S9095	1	Control Box
37	S6713	4	Tube End Cap 30x30 Sq. Grey
38	818.452	4	Tube End Cap
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

HUNTLEIGH NESBIT EVANS	PRODUCT: ENTERPRISE 5000B	1 OF 1	SHEET No: 09
DRWG NO: 818.465	TITLE: FOLDING S-SIDE ASSY (PAIR)	ISSUE 4	

ITEM	PART No	QTY	DESCRIPTION	818.465 (PAIR)	
				818.596 LH	818.597 RH
1	-------	1	S-SIDE HEAD END FAB'N	818.415	818.416
2	805.187	2	MALE S-SIDE HINGE		
3	805.186	6	FEMALE S-SIDE HINGE		
4	818.344	2	SAFETY SIDE RAIL		
5	S1633	6	'EJOT' THREAD FORMING SCREW		
6	-------	1	S-SIDE FOOT END FAB'N	818.400	818.407
7	820.74	1	S-SIDE PLUNGER		
8	734.48	1	PLUNGER SPRING		
9	788.915	1	S-SIDE KNOB		
10	S3606	1	HEX SKT BUTTON HD SCREW		
11	805.197	2	S-SIDE PIVOT		
12	805.195	1	S-SIDE STOP		
13	S4504	1	POP RIVET		
14	796.233	1	S-SIDE STOP BUTTON		
15	805.386	2	"REFER TO MANUAL" LABEL		
16	818.829	1	S-SIDE BOTTOM RAIL		
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					

HUNTLEIGH NESBIT EVANS	PRODUCT ENTERPRISE 5000B	SHEET No 09
DRWG NO 818.465	TITLE FOLDING S-SIDE ASSY	ISSUE 4

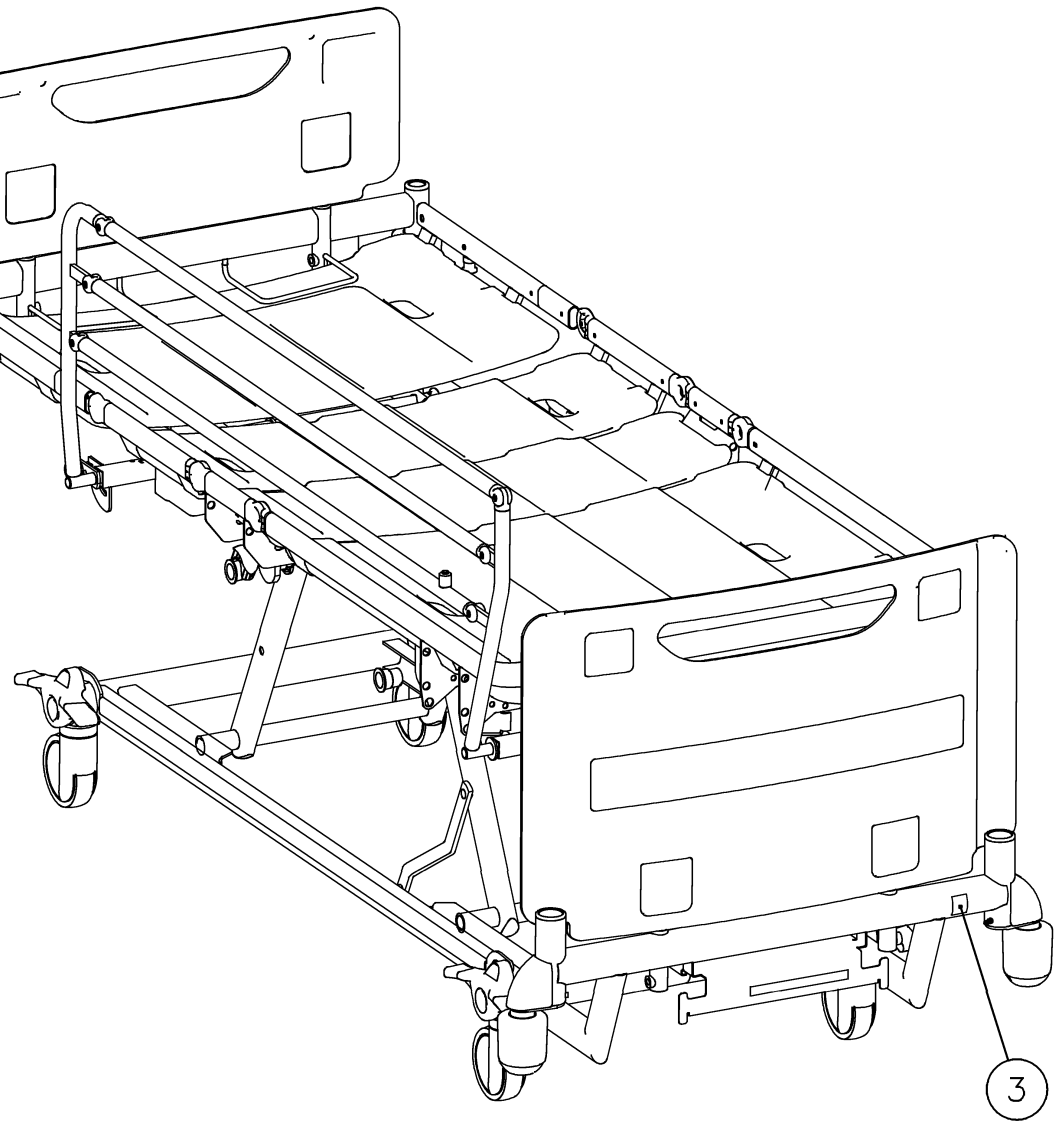
NOTE: ITEM 14 TO BE SECURED
WITH LOCTITE 499

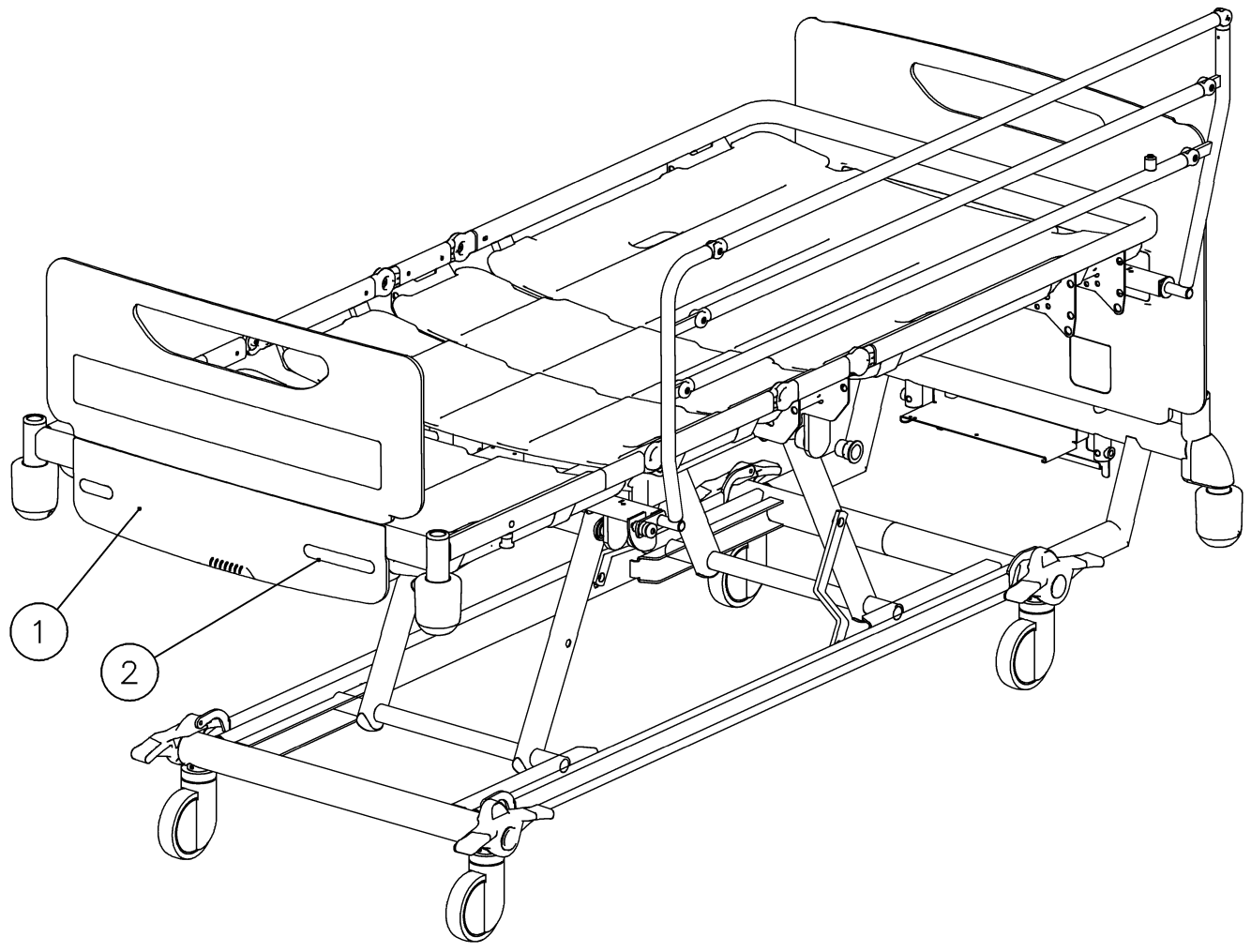


SCRAP SECTION THRO'
LOCKING DETAIL

DRAWN	SJJ 16.05.06	C.KED	KJ 5.9.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT 5000 BED	SHEET No 10
DRWG NO 818.613	TITLE LABELS MODULE	ISSUE 1



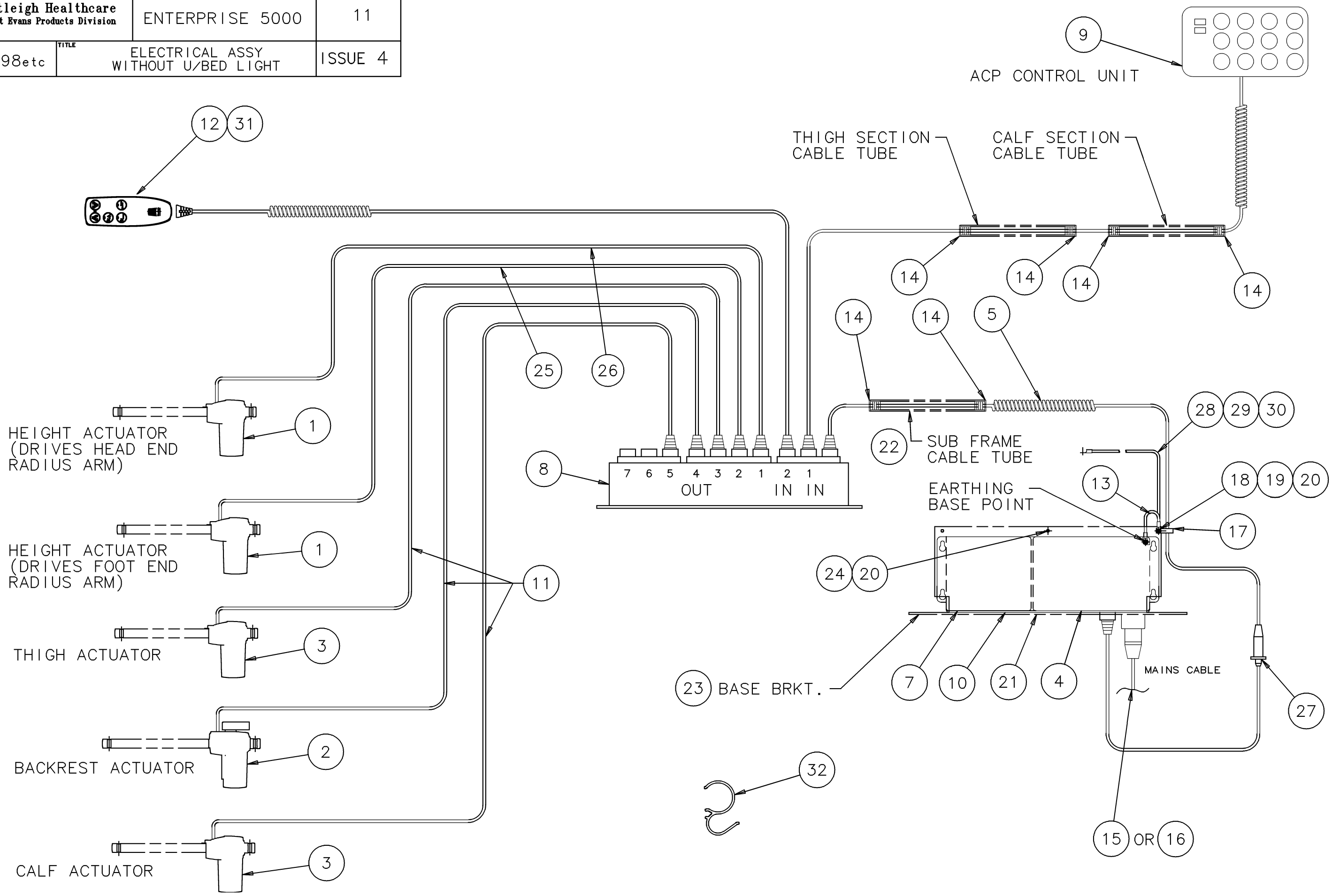


DRAWN	KJ 28.7.06	C.KED	DEJ 28.7.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT 5000 BED	1 OF 1	SHEET No 10
DRWG NO 818.613	TITLE LABELS MODULE	ISSUE 1	

ITEM	PART No	QTY	DESCRIPTION
1	818.201	1	HUNTLEIGH HEALTHCARE LABEL
2	818.629	1	ENTERPRISE 5000 LABEL
3	731.170	1	EQUI-POTENTIAL LABEL
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	SHEET No 11
DRWG NO 818.598etc	TITLE ELECTRICAL ASSY WITHOUT U/BED LIGHT	ISSUE 4



DRAWN	C.KED
KJ 17.7.06	SH 17.7.06

A3

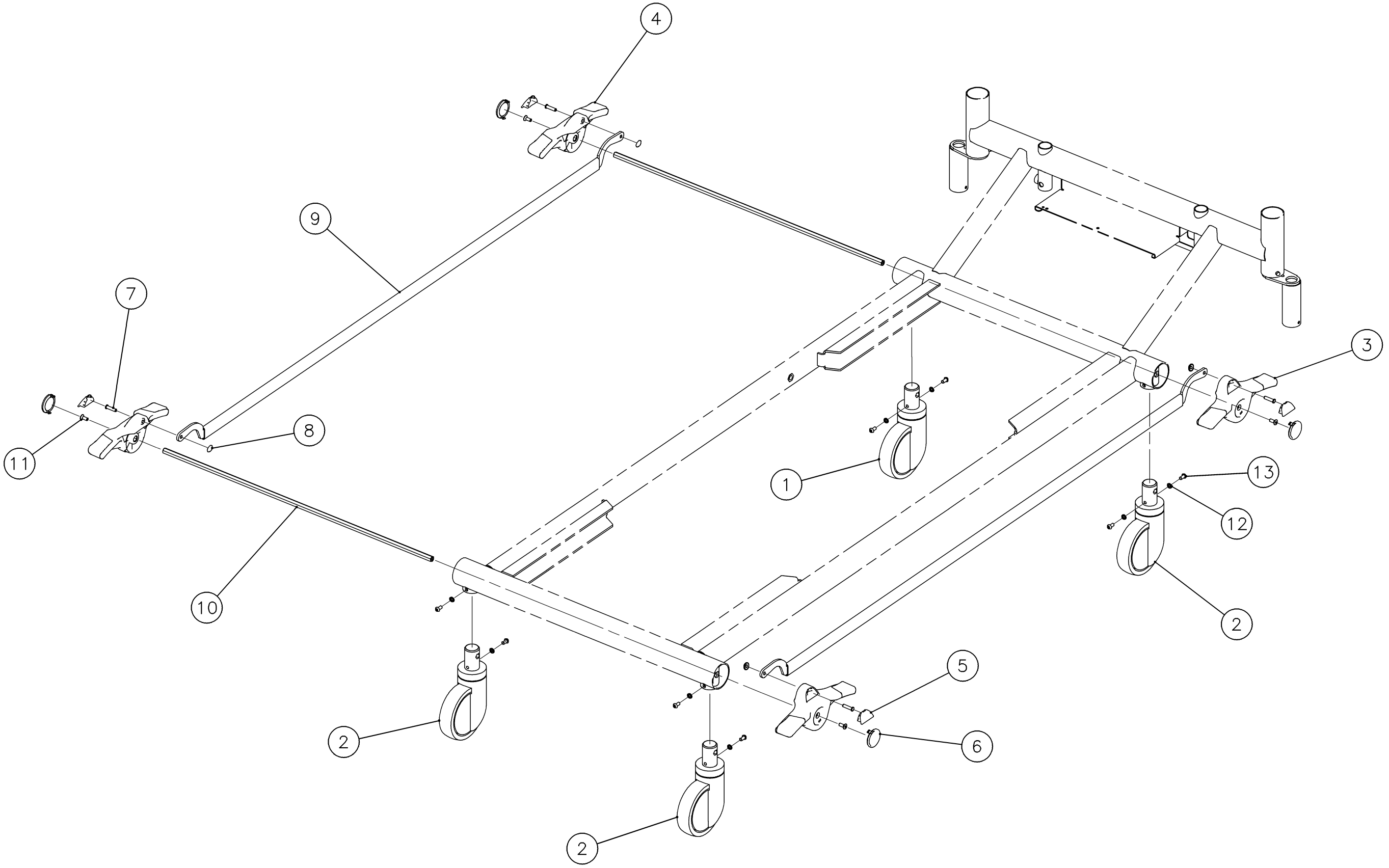
Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	1 OF 2	SHEET No 11
DRWG NO 818.598 etc	TITLE ELECTRICAL ASSY - WITHOUT UNDERBED LIGHTING	ISSUE 4	

ITEM	PART No		DESCRIPTION	818.598 UK PLUG PVC	818.599 EUR PLUG PVC	818.600 AUS PLUG PVC	818.601 120v PLUG PVC	818.602 UK PLUG EPR	818.603 EUR PLUG EPR	818.604 AUS PLUG EPR		
1	-------	2	Height Actuator (See Drg 818.567)									
2	-------	1	Back Rest Actu. (See Drg 818.565)									
3	-------	2	Calf/Thigh Actu. (See Drg 818.565)									
4	-------	1	Power Supply	S9094	S9094	S9094	S9110	S9094	S9094	S9094		
5	S9106	1	Extension cable									
6												
7	S9097	1	Battery									
8	-------	1	Control Box 5 CH (See Drg 818.567)									
9	S9141	1	ACP Control Unit - No U/Bed Light									
10	S9096	1	Mounting Plate									
11	S9112	3	6 Core Cable 600mm									
12	S9150	1	Handset HB80									
13	788.949	1	Earth Bonding Strap									
14	818.260	6	Split Cable Bush									
15	-------	1	Coiled Mains Lead (EPR)					818.317	818.318	818.319		
16	-------	1	Coiled Mains Lead (PVC)	818.320	818.321	818.322	818.323					
17	S6559	1	Cable Clamp									
18	S1128	1	Hex Hd Bolt M5 x 25Lg									
19	S4785	2	Serrated Washer M5									
20	S1410	2	Nyloc Nut M5									
21	-------	1	Specification Label	760.288	760.288	760.288	760.293	760.288	760.288	760.288		
22	-------	1	Sub Frame Fab (See Drg 818.567)									
23	-------	1	Base Fab (See Drg 818.563)									
24	S3410	1	Pozi Screw M5 x 12Lg									
25	S9113	1	6 Core Cable 750mm									
26	S9114	1	6 Core Cable 500mm									
27	S9107	1	Extension Cable Locking Ring									
28	818.467	1	Earth Bonding Strap									
29	S1619	1	Self-Tapping Screw NO.10 x x1/2"									
30	S4785	1	External Toothed Washer									

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	2 OF 2	SHEET No 11
DRWG NO 818.598 etc	TITLE ELECTRICAL ASSY - WITHOUT UNDERBED LIGHTING	ISSUE 4	

ITEM	PART No		DESCRIPTION	818.598 UK PLUG PVC	818.599 EUR PLUG PVC	818.600 AUS PLUG PVC	818.601 120v PLUG PVC	818.602 UK PLUG EPR	818.603 EUR PLUG EPR	818.604 AUS PLUG EPR		
31	805.530	1	Handset Clip Moulding									
32	818.459	1	Mains Cable Hook									
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 8000	SHEET No 12
DRWG NO 818.222etc	TITLE CASTORS/LINKS/PEDALS MODULE	ISSUE 4

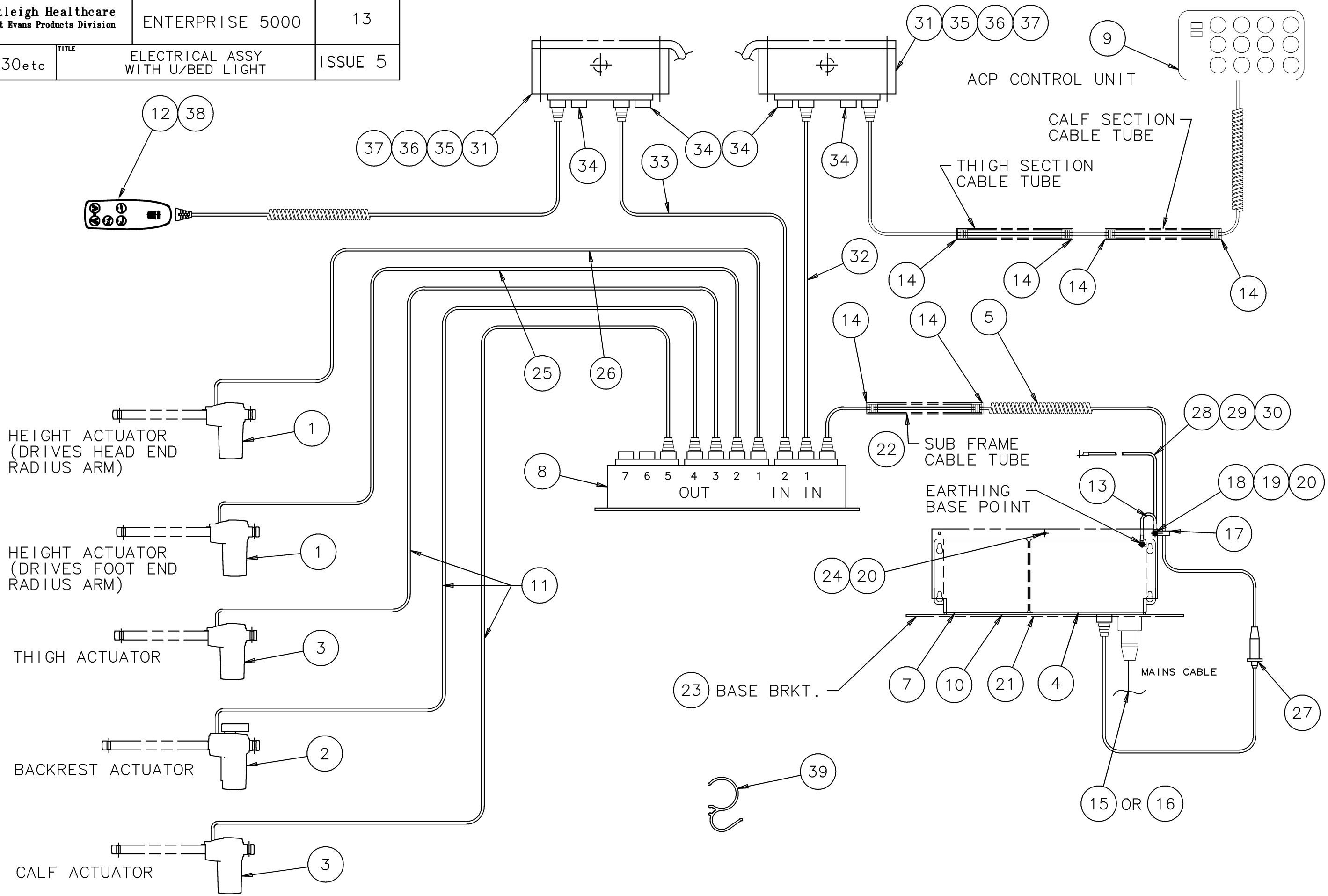


DRAWN	CHKED
KJ 23.12.05	DEJ 23.12.05

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 8000	1 OF 1	SHEET No 12
DRWG NO 818.222etc	TITLE CASTORS/LINKS/PEDALS MODULE	ISSUE 4	

ITEM	PART No	QTY	DESCRIPTION	818.222 SILVER ø125 SINGLE	818.227 SILVER ø150 SINGLE	818.262 MINT ø125 SINGLE	818.263 MINT ø150 SINGLE	818.229 SILVER ø150 TWIN-TECH	818.269 MINT ø150 TWIN-TECH			
1	-----	1	Castor Brake/Track	S6379	S6381	S6379	S6381	S6382	S6382			
2	-----	3	Castor Brake/Free	S6378	S6380	S6378	S6380	S6383	S6383			
3	818.168	2	Brake Pedal Complete LH									
4	818.169	2	Brake Pedal Complete RH									
5	818.121	4	Brake Link Cover									
6	818.120	4	Brake Pedal Cap									
7	S3842	4	Clevis Pin ø6x25									
8	S4816	4	Plain Starlock Washer ø6									
9	------	2	Brake Link Fab'n	818.76	818.76	818.261	818.261	818.76	818.261			
10	818.75	2	Brake Bar									
11	S1306	4	Csk Socket Screw M6x16									
12	S1210	8	Nord-Lock Washer M6									
13	S3610	8	Button Hd Socket Screw M6x12									
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	SHEET No 13
DRWG NO 818.630etc	TITLE ELECTRICAL ASSY WITH U/BED LIGHT	ISSUE 5



DRAWN	KJ 23.8.06	C.KED	SH 23.8.06

A3

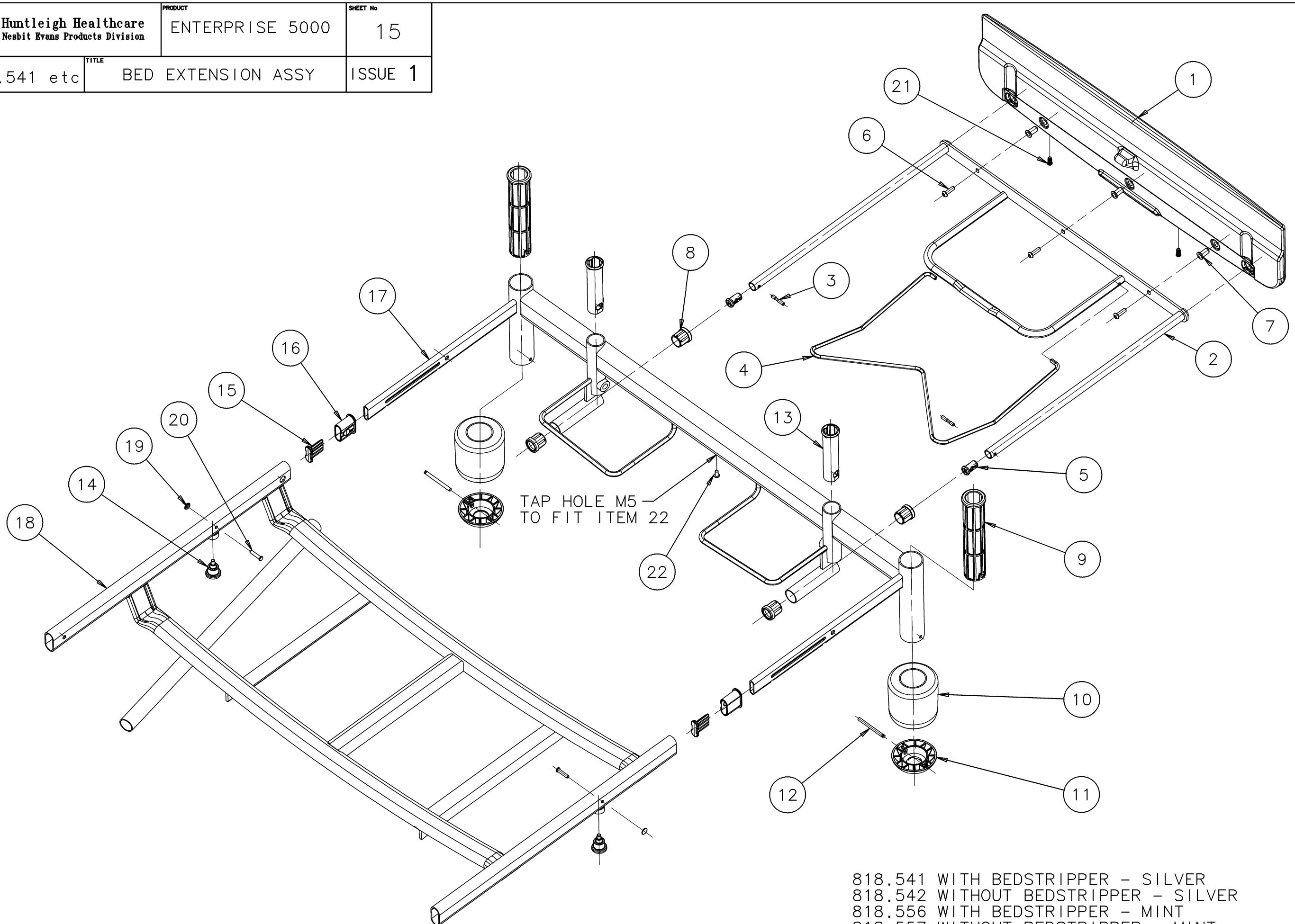
Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	1 OF 2	SHEET No 13
DRWG NO 818.630 etc	TITLE ELECTRICAL ASSY - WITH UNDERBED LIGHTING	ISSUE 5	

ITEM	PART No		DESCRIPTION	818.630 UK PLUG PVC	818.631 EUR PLUG PVC	818.632 AUS PLUG PVC	818.633 120v PLUG PVC	818.634 UK PLUG EPR	818.635 EUR PLUG EPR	818.636 AUS PLUG EPR		
1	-------	2	Height Actuator (See Drg 818.567)									
2	-------	1	Back Rest Actu. (See Drg 818.565)									
3	-------	2	Calf/Thigh Actu. (See Drg 818.565)									
4	-------	1	Power Supply	S9094	S9094	S9094	S9110	S9094	S9094	S9094		
5	S9106	1	Extension cable									
6												
7	S9097	1	Battery									
8	-------	1	Control Box 5 CH (See Drg 818.567)									
9	S9140	1	ACP Control Unit With U/Bed Light									
10	S9096	1	Mounting Plate									
11	S9112	3	6 Core Cable 600mm									
12	S9150	1	Handset HB80									
13	788.949	1	Earth Bonding Strap									
14	818.260	6	Split Cable Bush									
15	-------	1	Coiled Mains Lead (EPR)					818.317	818.318	818.319		
16	-------	1	Coiled Mains Lead (PVC)	818.320	818.321	818.322	818.323					
17	S6559	1	Cable Clamp									
18	S1128	1	Hex Hd Bolt M5 x 25Lg									
19	S4785	2	Serrated Washer M5									
20	S1410	2	Nyloc Nut M5									
21	-------	1	Specification Label	760.288	760.288	760.288	760.293	760.288	760.288	760.288		
22	-------	1	Sub Frame Fab (See Drg 818.567)									
23	-------	1	Base Fab (See Drg 818.563)									
24	S3410	1	Pozi Screw M5 x 12Lg									
25	S9113	1	6 Core Cable 750mm									
26	S9114	1	6 Core Cable 500mm									
27	S9107	1	Extension Cable Locking Ring									
28	818.467	1	Earth Bonding Strap									
29	S1619	1	Self-Tapping Screw NO.10 x x1/2"									
30	S4785	1	External Toothed Washer									

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	2 OF 2	SHEET No 13
DRWG NO 818.630 etc	TITLE ELECTRICAL ASSY - WITH UNDERBED LIGHTING	ISSUE 5	

ITEM	PART No		DESCRIPTION	818.630 UK PLUG PVC	818.631 EUR PLUG PVC	818.632 AUS PLUG PVC	818.633 120v PLUG PVC	818.634 UK PLUG EPR	818.635 EUR PLUG EPR	818.636 AUS PLUG EPR		
31	S9099	2	Junction Box									
32	S9100	1	Network Cable 600 mm									
33	S9111	1	Network Cable 800 mm									
34	S9108	4	Blanking Plug									
35	S3462	4	Pan Head Pozi Screw M4x45 Zn Plt									
36	S1828	4	M4 Plain Washer									
37	S1420	4	M4 Nyloc Nut									
38	805.530	1	Handset Clip Moulding									
39	818.459	1	Mains Cable Hook									
40												
41												
42												
43												
44												
45												
46												
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	SHEET No 15
DRWG NO 818.541 etc	TITLE BED EXTENSION ASSY	ISSUE 1



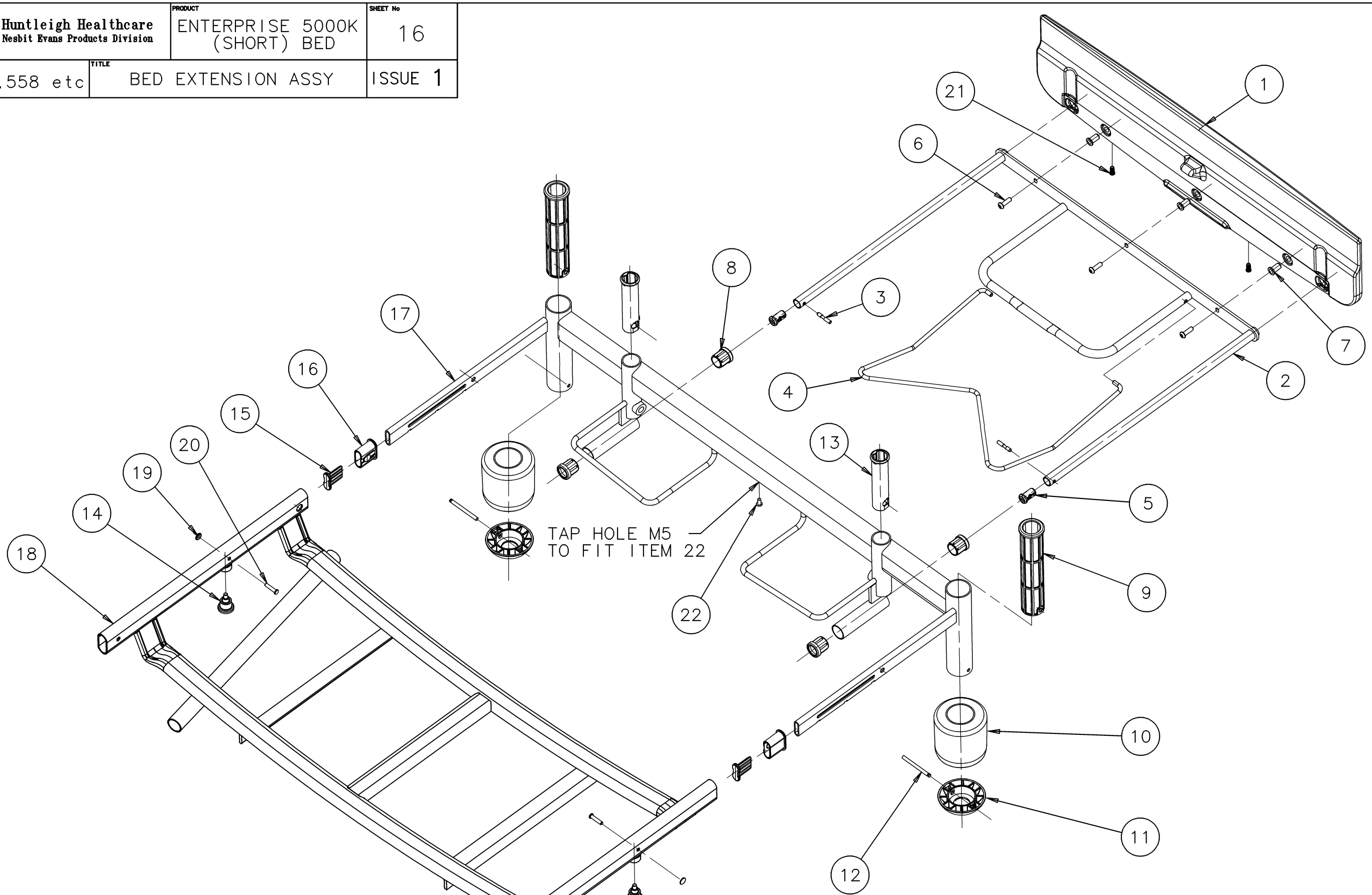
818.541 WITH BEDSTRIPPER - SILVER
818.542 WITHOUT BEDSTRIPPER - SILVER
818.556 WITH BEDSTRIPPER - MINT
818.557 WITHOUT BEDSTRIPPER - MINT

DRAWN	KJ 20.6.06	C.KED	DEJ 20.6.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	1 OF 1	SHEET No 15
DRWG NO 818.541 etc	TITLE BED EXTENSION ASSY	ISSUE 1	

ITEM	PART No	QTY	DESCRIPTION	818.541 SILVER, WITH B/STRIPPER	818.542 SILVER, NO B/STRIPPER		
1	------	1	Bed Stripper Moulding	818.84	-		
2	------	1	Bed Stripper Fab'n	818.92	-		
3	-------	2	Bed Stripper Stop Pin	805.691	-		
4	------	1	Duvet Retainer	818.96	-		
5	-------	2	Bed Stripper End Cap	805.690	-		
6	-----	3	Socket Button Head Scw M6x20	S3602	-		
7	-----	3	Threaded Insert (Masterfix)	S6837	-		
8	------	4	Bed Stripper Bush	805.19	-		
9	818.124	2	Extension Corner Tube Liner				
10	818.109	2	Roller Buffer Complete				
11	818.110	2	Roller Buffer Retainer				
12	805.16	2	Retaining Pin				
13	818.126	2	Panel Socket Liner				
14	S6839	2	Indexing Plunger Assy				
15	818.97	2	Extension Inner Tube End Cap				
16	818.98	2	Bed Extension Bush				
17	818.53	1	Bed Extension Fab'n				
18	818.535	1	Calf Fab'n				
19	S4837	2	Capped Starlock ø5				
20	S3844	2	Clevis Pin ø5 x 23 Lg				
21	818.295	2	Panel Plug				
22	S3619	1	Socket Button Head Scw M5x10				
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000K (SHORT) BED	SHEET No 16
DRWG NO 818.558 etc	TITLE BED EXTENSION ASSY	ISSUE 1



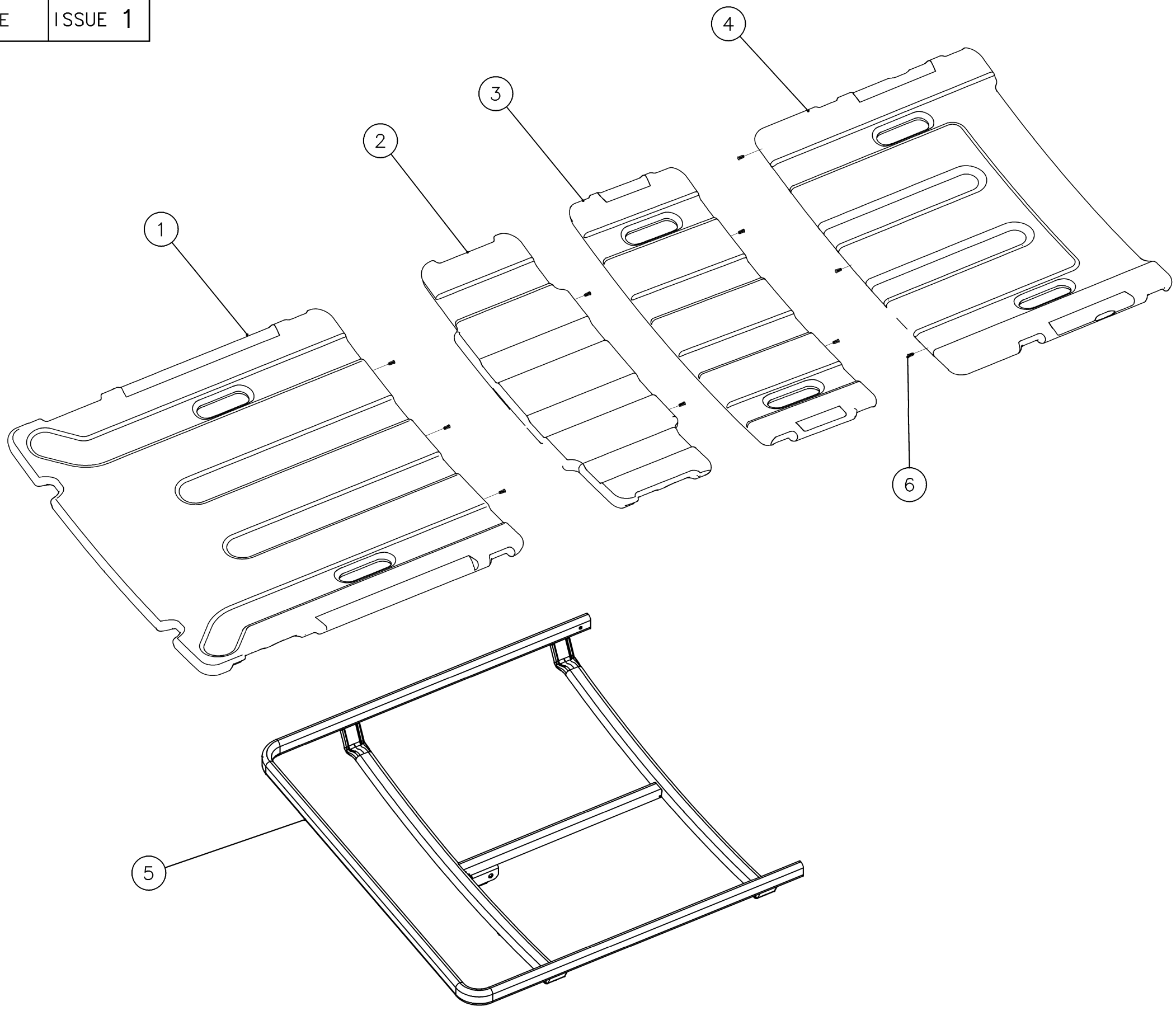
818.558 WITH BEDSTRIPPER - SILVER
818.559 WITHOUT BEDSTRIPPER - SILVER
818.560 WITH BEDSTRIPPER - MINT
818.561 WITHOUT BEDSTRIPPER - MINT

DRAWN	KJ 4.7.06	C.KED	DEJ 4.7.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000K (SHORT) BED	1 OF 1	SHEET No 16
DRWG NO 818.558 etc	TITLE BED EXTENSION ASSY	ISSUE 1	

ITEM	PART No	QTY	DESCRIPTION	818.558 SILVER, WITH B/STRIPPER	818.559 SILVER, NO B/STRIPPER		
1	------	1	Bed Stripper Moulding	818.84	-		
2	------	1	Bed Stripper Fab'n	818.92	-		
3	-------	2	Bed Stripper Stop Pin	805.691	-		
4	------	1	Duvet Retainer	818.96	-		
5	-------	2	Bed Stripper End Cap	805.690	-		
6	-----	3	Socket Button Head Scw M6x20	S3602	-		
7	-----	3	Threaded Insert (Masterfix)	S6837	-		
8	------	4	Bed Stripper Bush	805.19	-		
9	818.124	2	Extension Corner Tube Liner				
10	818.109	2	Roller Buffer Complete				
11	818.110	2	Roller Buffer Retainer				
12	805.16	2	Retaining Pin				
13	818.126	2	Panel Socket Liner				
14	S6839	2	Indexing Plunger Assy				
15	818.97	2	Extension Inner Tube End Cap				
16	818.98	2	Bed Extension Bush				
17	818.331	1	Bed Extension Fab'n				
18	818.543	1	Calf Fab'n				
19	S4837	2	Capped Starlock ø5				
20	S3844	2	Clevis Pin ø5 x 23 Lg				
21	818.295	2	Panel Plug				
22	S3619	1	Socket Button Head Scw M5x10				
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000B	SHEET No 20
DRWG NO 818.592	TITLE DECK SHEETS MODULE	ISSUE 1

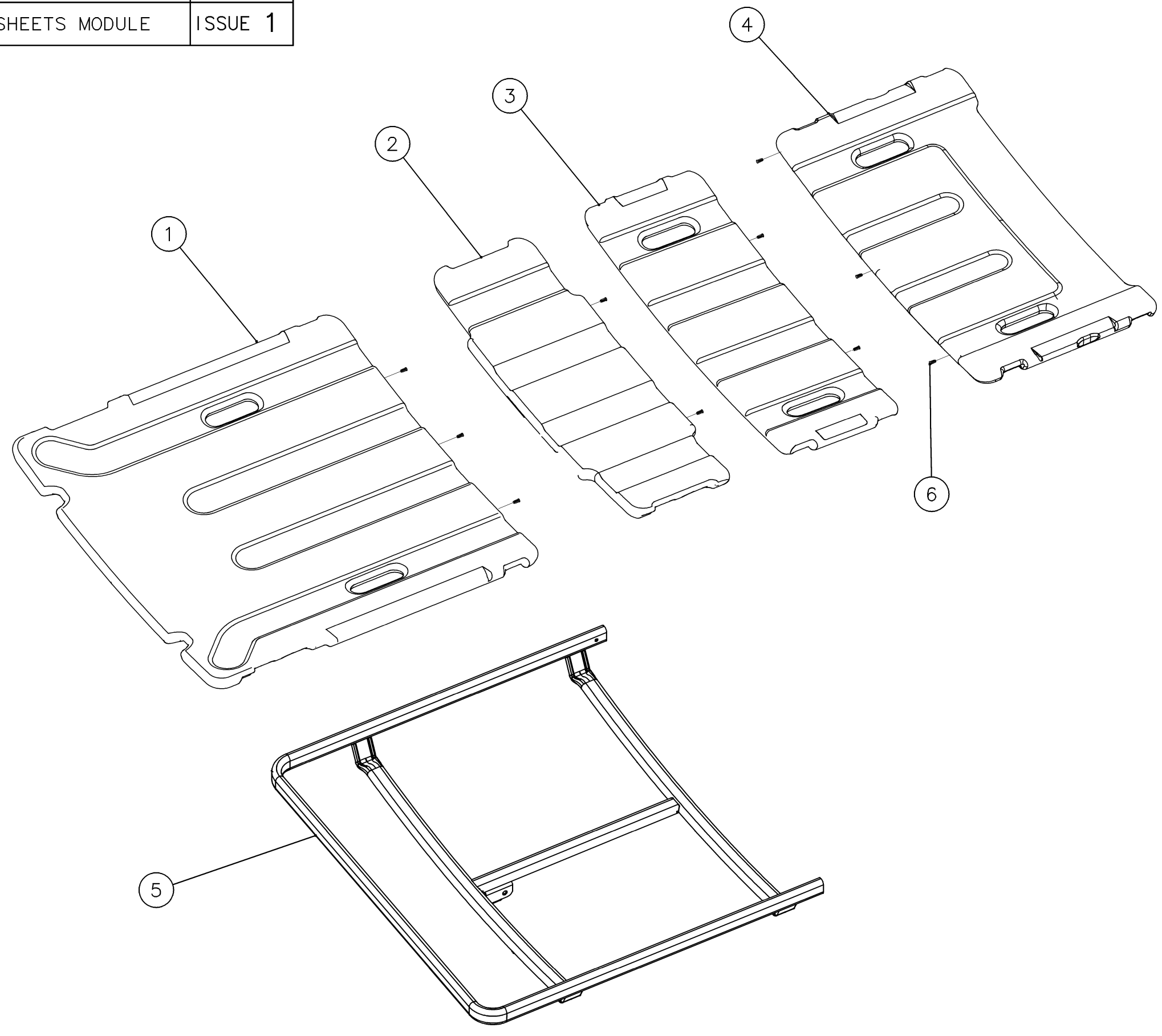


DRAWN	C.KED
KJ 21.7.06	SH 21.7.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT 5000	1 OF 1	SHEET No 20
DRWG NO 818.592	TITLE DECK SHEETS MODULE	ISSUE 1	

ITEM	PART No	QTY	DESCRIPTION
1	818.59	1	Backrest Deck Sheet Moulding
2	818.60	1	Seat Deck Sheet Moulding
3	818.61	1	Thigh Deck Sheet Moulding
4	818.62	1	Calf Deck Sheet Moulding
5	818.332	1	Backrest Fab'n
6	818.295	10	Panel Plug
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000K (SHORT BED)	SHEET No 22
DRWG NO 818.638	TITLE DECK SHEETS MODULE	ISSUE 1

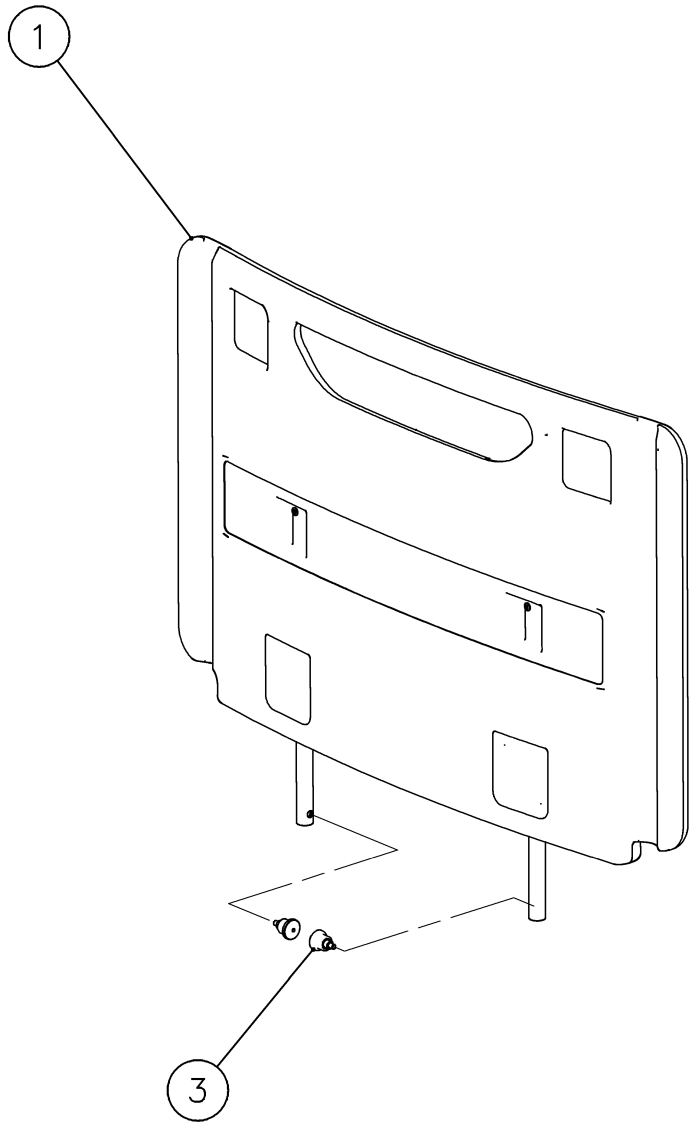


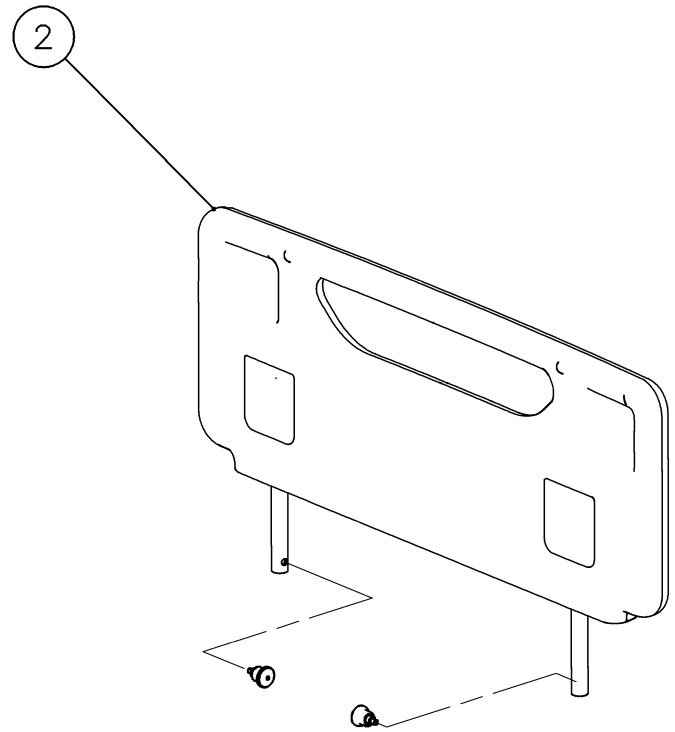
DRAWN	C.KED
KJ 21.7.06	SH 21.7.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000K (SHORT BED)	1 OF 1	SHEET No 22
DRWG NO 818.638	TITLE DECK SHEETS MODULE	ISSUE 1	

ITEM	PART No	QTY	DESCRIPTION
1	818.59	1	Backrest Deck Sheet Moulding
2	818.60	1	Seat Deck Sheet Moulding
3	818.61	1	Thigh Deck Sheet Moulding
4	818.380	1	Calf Deck Sheet Moulding
5	818.332	1	Backrest Fab'n
6	818.295	10	Panel Plug
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 8000	SHEET No 30
DRWG NO 818.226etc	TITLE FOOT/HEADBOARDS MODULE	ISSUE 2



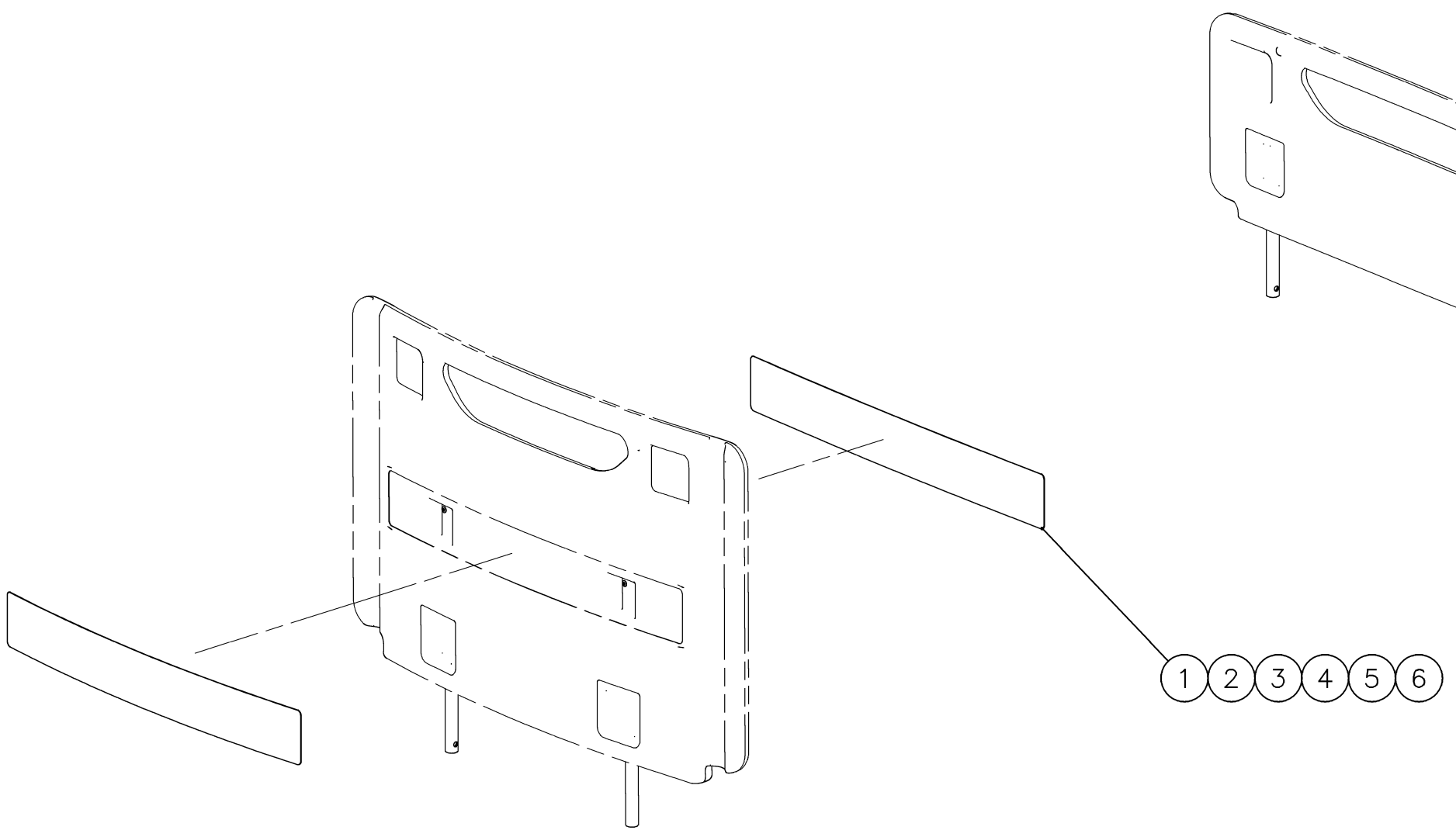


DRAWN	C.KED
KJ 12.1.06	DEJ 12.1.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 8000	1 OF 1	SHEET No 30
DRWG NO 818.226 etc	TITLE HEAD/FOOTBOARD MODULES	ISSUE 2	

ITEM	PART No	QTY	DESCRIPTION	818.226 LOCKING	818.273 NON-LOCKING									
1	818.174	1	Headboard Assy											
2	818.173	1	Footboard Assy											
3	-------	4	Indexing plunger Assy	S6839	-									
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 8000	SHEET No 35
DRWG NO 818.254etc	TITLE PANEL INFILL MODULE	ISSUE 2

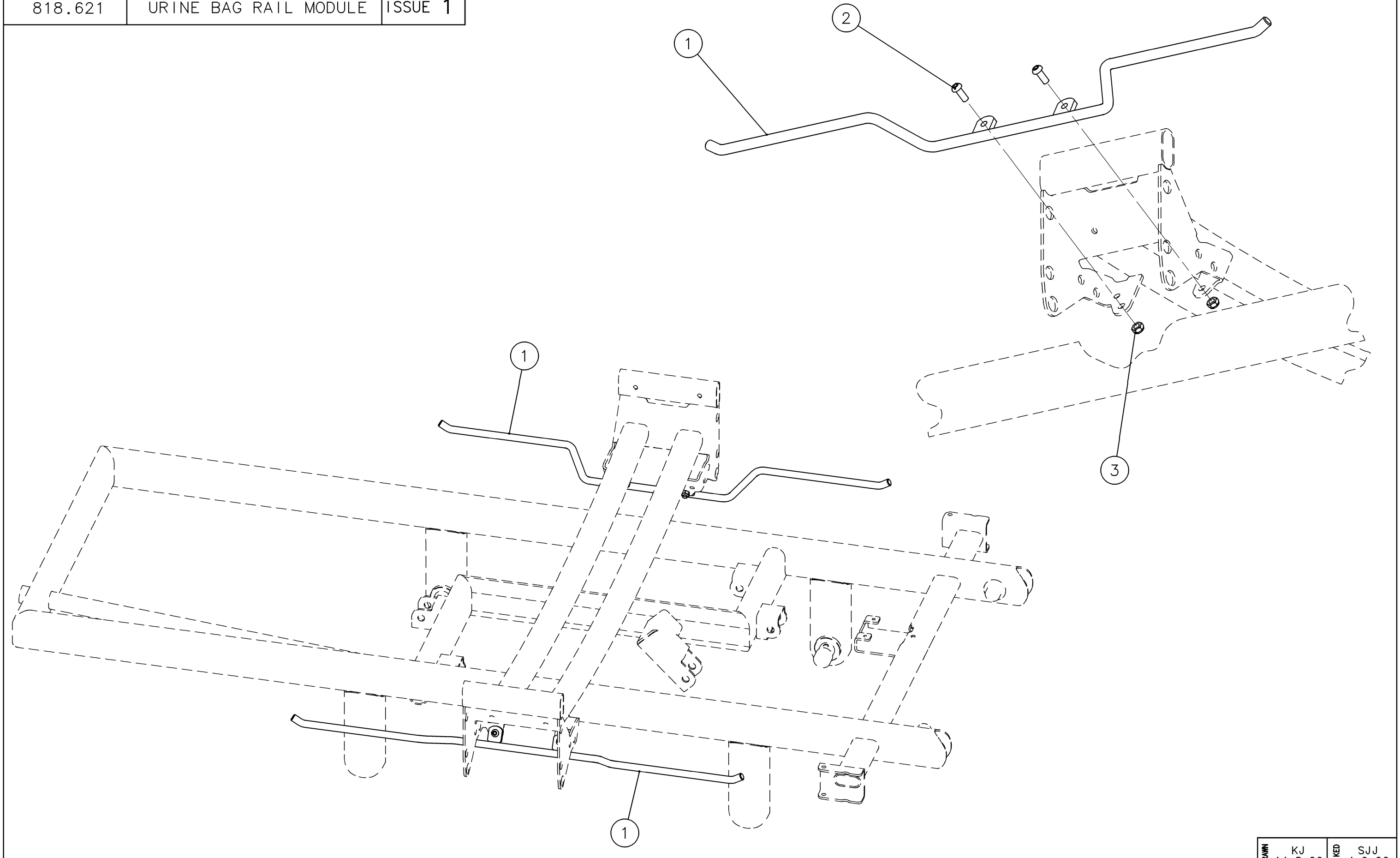


DRAWN	KJ 12.1.06	C.KED	DEJ 12.1.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 8000	1 OF 1	SHEET No 35
DRWG NO 818.254etc	TITLE PANEL INFILL MODULES	ISSUE 2	

ITEM	PART No	DESCRIPTION	818.254 LT.BLUE 641	818.280 SEA BLUE	818.281 LILAC 606	818.282 LT.GREEN 517	818.283 PEACH 535	818.284 MUSHROOM	818.469 LT. ASH			
1	818.101	Infill - Light Blue 641	3									
2	818.275	Infill - Sea Blue (Pantone 278/279		3								
3	818.276	Infill - Lilac 606			3							
4	818.277	Infill - Light Green 517				3						
5	818.278	Infill - Peach 535					3					
6	818.279	Infill - Mushroom (Pantone 479/480						3				
7	818.468	Infill - Light Ash							3			
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE BED	SHEET No 50
DRWG NO 818.621	TITLE URINE BAG RAIL MODULE	ISSUE 1

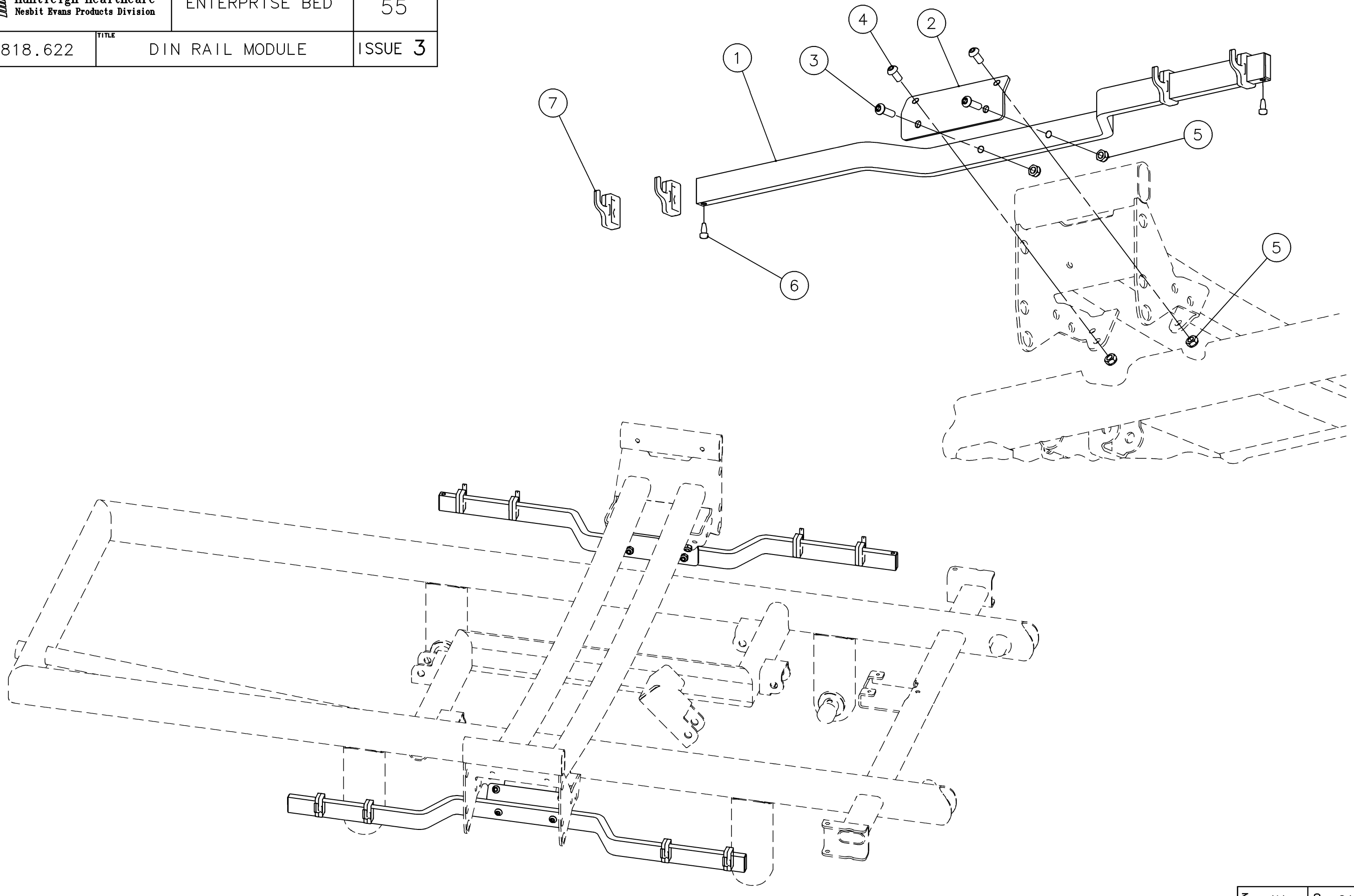


DRAWN	C.KED
KJ 14.8.06	SJJ 4.9.06

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE BED	1 of 1	SHEET No 50
DRWG NO 818.621	TITLE URINE BAG RAIL MODULE	ISSUE 1	

ITEM	PART No	QTY	DESCRIPTION
1	818.617	2	Urine Bag Rail Fab'n
2	S3623	4	Socket Button Head Screw M6 x 16
3	S1409	4	M6 Nyloc Nut (Thin)
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE BED	SHEET No 55
DRWG NO 818.622	TITLE DIN RAIL MODULE	ISSUE 3

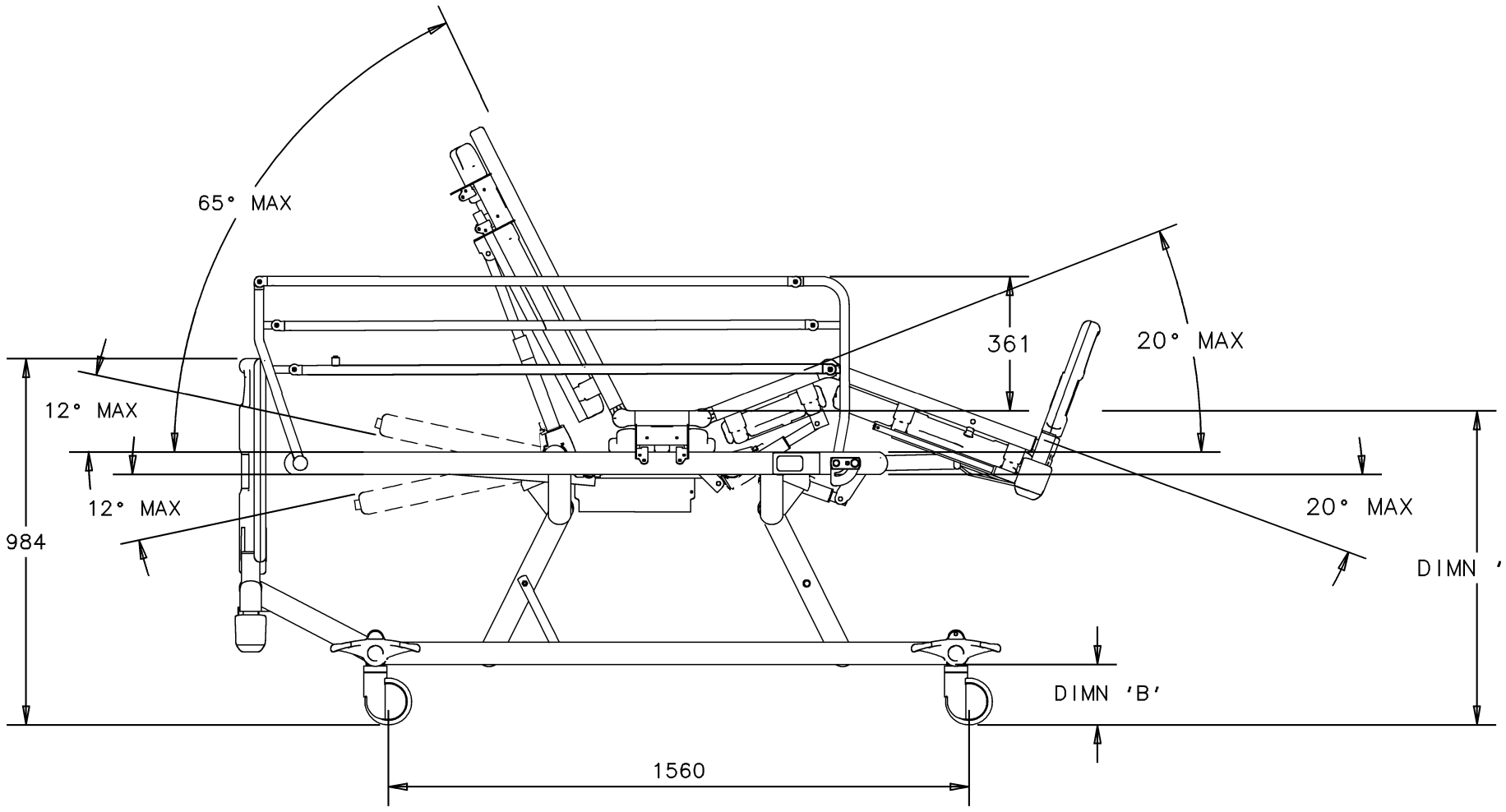


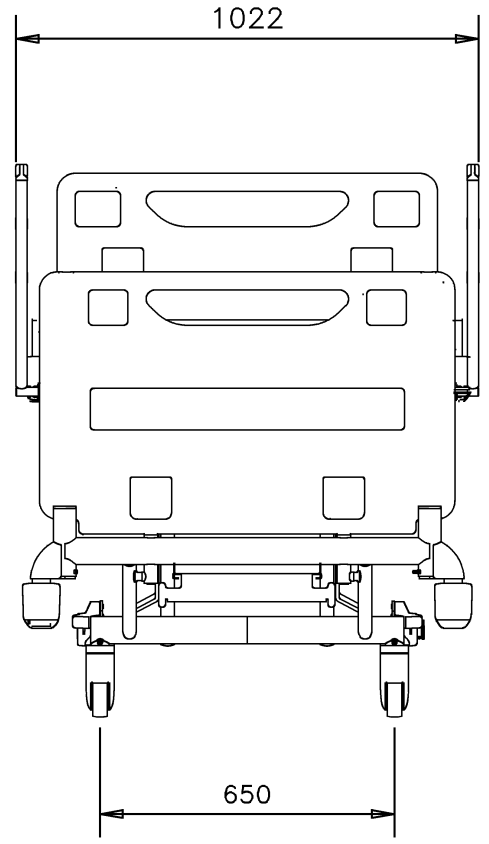
DRAWN	C.KED
KJ 21.8.06	SJJ 4.9.06

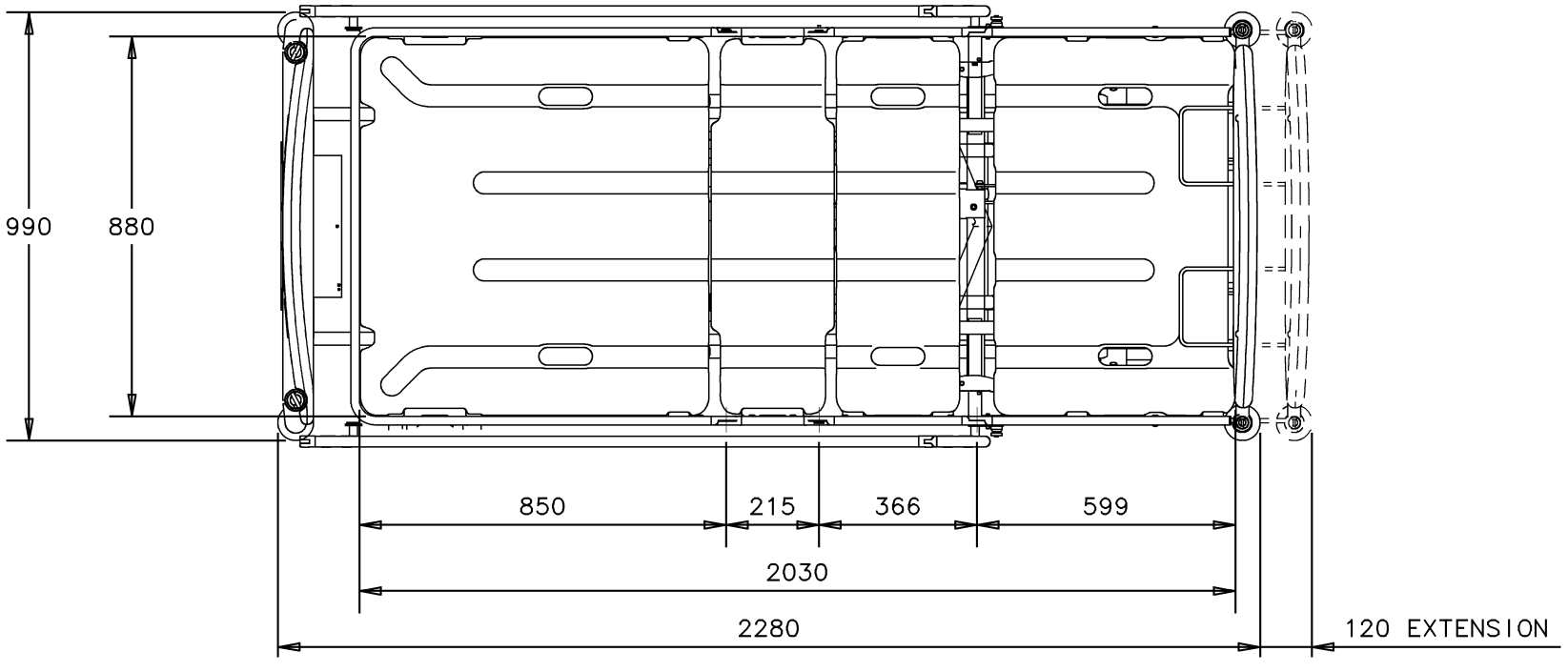
Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE BED	1 OF 1	SHEET No 55
DRWG NO 818.622	TITLE DIN RAIL MODULE	ISSUE 3	

ITEM	PART No	QTY	DESCRIPTION
1	818.372	2	Din Rail
2	818.628	2	Din Rail Adaptor Plate
3	S3602	4	Socket Button Head Screw M6 x 20
4	S3610	4	Socket Button Head Screw M6 x 12
5	S1409	8	M6 Nyloc Nut (Thin)
6	S5102	4	Drive Fastener 3/16"
7	818.213	8	Rail Hook
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

Huntleigh Healthcare Nesbit Evans Products Division	PRODUCT ENTERPRISE 5000	SHEET No 70
DRWG NO 818.627	TITLE OVERALL DIMENSIONS	ISSUE 1







DIMN 'A' : 300 TO 770 (TENTE INTEGRAL ø125 CASTORS)
325 TO 795 (TENTE INTEGRAL ø150 CASTORS)

DIMN 'B' : 162 (TENTE INTEGRAL ø125 CASTORS)
187 (TENTE INTEGRAL ø150 CASTORS)

MATTRESS PLATFORM : 2030 x 880

PRODUCT WEIGHT : 154 kg

SAFE WORKING LOAD : 250 kg

DRAWN	KJ 9.8.06	C.KED	SH 9.8.06

APPENDIX B – SAFE DISPOSAL OF GAS SPRINGS

The gas spring contains air and oil at high pressure and must be vented in accordance with the following instructions before being discarded.

Under no circumstances should any attempt be made to open the device.

WARNING

Danger of explosion. Do not heat or incinerate.

High pressure gas. The sudden release of gas at high pressure could cause serious injury or death. Put on suitable protective clothing, eye protection and / or a face shield.

1. Operate the valve at the end of the piston rod and allow the piston rod to extend fully.
2. Clamp the gas spring in a vice and drill a hole approximately 3mm diameter at position 1 as shown in Fig. B-1. Screen off the drilling point as metal chips and oil may be ejected due to the high internal pressure. Then drill a second hole at position 2 as shown. The holes should be drilled to a depth of approximately 10mm.

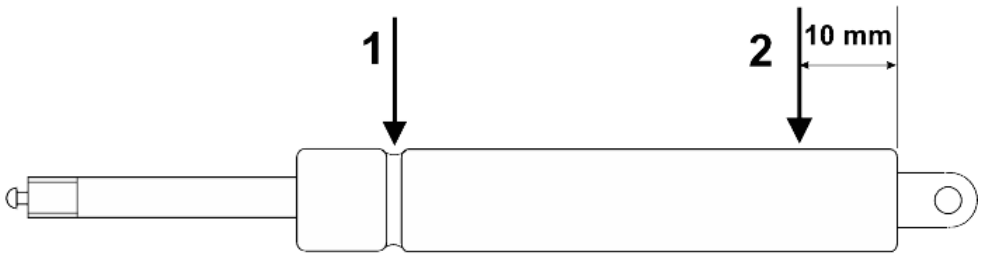


Figure B-1 Disposal of gas spring

3. Operate the valve at the end of the piston rod and push in the piston rod.
4. Drain oil from the gas spring by pumping the piston rod in and out several times.
5. Dispose of the gas spring and oil through raw materials trade or special refuse points. Do not dispose of gas springs or oil in household refuse.

If correct disposal in accordance with these instructions is not possible, the unit should be returned to the supplier.

APPENDIX C – ELECTROMAGNETIC COMPATIBILITY (EMC) INFORMATION

Caution

The use of non-approved accessories may result in increased emissions or reduced immunity of the equipment. A list of approved accessories is included in the user manual.

When this equipment is used adjacent to other electronic devices, the user should observe the equipment to verify normal operation.

Guidance and manufacturer's declaration – electromagnetic emissions		
The ENTERPRISE™ 5000 is intended for use in the electromagnetic environment specified below. The customer or the user of the ENTERPRISE™ 5000 should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment - guidance**
RF emissions CISPR 11	Group 1	The ENTERPRISE™ 5000 uses RF energy only for its internal function. Therefore its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The ENTERPRISE™ 5000 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity			
The ENTERPRISE™ 5000 is intended for use in the electromagnetic environment specified below. The customer or the user of the ENTERPRISE™ 5000 should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Electrostatic discharge (ESD) IEC 610000-4-2	± 6kV contact ± 8kV air	± 6kV contact ± 8kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/burst IEC 61000-4-4	± 2kV for power supply lines ± 1kV for input/output lines	± 2kV Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1kV line to line ± 2kV line to earth	± 1kV ± 2kV	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	70% U_T (30% dip in U_T) for 25 cycles 40% U_T (60% dip in U_T) for 5 cycles <5% U_T (>95% dip in U_T) for 0.5 cycle <5% U_T (>95% dip in U_T) for 5 sec	70% of input voltage for 500ms 40% of input voltage for 100ms <5% of input voltage for 10ms <5% of input voltage for 5000ms	Mains power quality should be that of a typical commercial or hospital environment. If the user of the ENTERPRISE™ 5000 requires continued operation during power mains interruptions, it is recommended that the ENTERPRISE™ 5000 be powered from an uninterruptible power supply or battery.
Power frequency (50/60Hz) magnetic field IEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE U_T is the a.c. mains voltage prior to the application of the test level			

Guidance and manufacturer's declaration – electromagnetic immunity

The ENTERPRISE™ 5000 is intended for use in the electromagnetic environment specified below. The customer or the user of the ENTERPRISE™ 5000 should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3V rms 150kHz to 80MHz 3V/m 80MHz to 2.5GHz	3V 3V/m	Portable and mobile RF communication s equipment should be used no closer to any part of the ENTERPRISE™ 5000, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d = 1.2\sqrt{P}$ $d = 1.2\sqrt{P}$ 80 MHz to 800MHz $d = 2.3\sqrt{P}$ 800MHz to 2.5GHz Where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and *d* is the recommended separation in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b] Interference may occur in the vicinity of equipment marked with the following symbol:

NOTE 1 At 80MHz and 800MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the ENTERPRISE™ 5000 is used exceeds the applicable RF compliance level above, the ENTERPRISE™ 5000 should be observed to verify normal operation. If abnormal performance is observed additional measures may be necessary, such as reorienting or relocating the ENTERPRISE™ 5000.

b Over the frequency range 150kHz to 80MHz, field strengths should be less than 3V/m.

Recommended separation distances between portable and mobile RF communications equipment and the ENTERPRISE™ 5000

The ENTERPRISE™ 5000 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the ENTERPRISE™ 5000 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the ENTERPRISE™ 5000 as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter **W**	**Separation distance according to frequency of transmitter** **m**		
	150kHz to 80MHz $d = 1.2\sqrt{P}$	**80MHz to 800MHz** $d = 1.2\sqrt{P}$	**800MHz to 2.5GHz** $d = 2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance *d* in metres (m) can be estimated using the equation applicable to the power of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80MHz and 800MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.